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ABSTRACT

This manual is designed to train those helping professionals working with youth overseas, military personnel, and community service organizations in the area of drug abuse prevention and treatment. The resource modules focus on the following areas of concern: (1) introduction to prevention and treatment; (2) perspectives on substance use and abuse; (3) social and historical contexts for understanding American substance abuse; (4) substance actions; (5) understanding the phenomenon of substance abuse; (6) treatment approaches; (7) prevention approaches and strategies; and (8) closure and evaluation. The trainer's manual provides guidelines and suggestions for lectures, demonstrations, guided group discussions, task group exercises, and optional reading assignments. (Author/HLM)

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DRUGS IN PERSPECTIVE

TRAINER'S MANUAL
AND
RESOURCE MANUAL

COURSE DEVELOPMENT TEAM

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PREFACE

One of the conceptual difficulties of health planners and people concerned with health policy has been the difficulty of defining "good health" in a way that provides a clear basis for social action. Some definitions emphasize the concept of "absence of disease." Other definitions are concerned with the positive promotion of quality of life; others combine both concepts. Yet there is no general agreement today on what constitutes "good health." This same dilemma carries over to the discussion of "drug abuse." Not only is there a question of what constitutes good treatment, but there has been an ambivalence as to the meaning of "drug abuse."

Historically, there have been a variety of definitions ascribed to the term "drug abuse." Some schools of thought use the classical public health approach; some use definitions that fit other social and behavioral models. Some people want to limit the discussion to the so-called "demand" activities—which center primarily on the development and delivery of health and social services. Still others want to include all activities designed to regulate the availability of drugs. While supply reduction efforts are an important aspect of an overall prevention strategy—and companion legal control approaches to tobacco and alcohol (such as taxes, ABC laws, minimum ages for legal drinking and smoking, controlled sales points, etc.) are essential for the more comprehensive discussion of drug abuse—this course will focus on those factors that attempt to influence behavior and attitude, and whose compelling force is not legal sanction. While definitions are important, we are less concerned with them than we are with the results of these efforts, which are to prevent, delay, and reduce the use and abuse of a variety of drugs.

We recognize that most people in the United States use or have used psychoactive substances. The latest national household survey on the use of psychoactive drugs (NIDA, 1976) notes that 50 percent of youths age 12-17 and 67 percent of all adults have smoked cigarettes; 55 percent of those youths and 82 percent of adults have used alcohol; 22 percent of the youths, and 21 percent of adults have used marihuana. These rates of use, especially with alcohol and tobacco, are associated with a high casualty rate to society—which we want to reduce. While the nonmedical use of psychotropic drugs (sedatives, tranquilizers, stimulants) is lower—11 percent of youths and 15 percent of adults—the consequences associated with such use are often costly to society, due to both drug overdose reactions, and a range of mishaps, work accidents, and deteriorated interpersonal relationships. Finally, while only one percent of the adults and one-half of one percent of the youths have used heroin, this use clearly is associated with high immediate social costs in terms of physical addiction, drug related crime, broken families, adverse health consequences, and even death.

There are a variety of strategies we can employ to reduce drug casualties. First, we want to reinforce the drug-free experience. Further, we are interested in limiting the variety of drugs used, since multiple drug use is often associated with chronic, intensive use of drugs. Finally, we are concerned about reducing the frequency of use because we believe there is a strong relationship between frequency and casualty. Consequently, our definition of drug abuse covers all of these areas.

COURSE OVERVIEW

PURPOSE

To identify the inaccurate images and unsound assumptions that hinder a clear understanding of the problem of substance abuse; to provide new ways of considering the phenomenon of substance use; to consider historical and social perceptions regarding substance use, patterns and trends of use, and societal and legal responses to illicit drugs; to provide an accurate description of psychoactive drugs in terms of effects and actions; to provide new ways of considering the etiology of substance abuse; to identify methods of substance abuse treatment; and to explore the goals, perspectives, and history of drug abuse prevention.

OBJECTIVES

Using the information presented in the Drugs in Perspective course, at the end of this course, and without the aid of notes, the participants will be able to:

- Identify two components of the spectrum of drug use.
- Identify four different perspectives for understanding drug use.
- Identify a definition for the word "drug."
- Identify at least two characteristics of physiological dependence.
- Identify at least two characteristics of psychological dependence.
- Identify at least three major events that led to the increasing use of substances during the 1960's.
- Identify one social and one legal response to substance abuse post Civil War.
- Identify one social and one legal response to the use of alcohol.
- Identify three changes that have occurred since 1965 in social and legal responses to substance abuse.
- Identify at least four perspectives, drawn from history, that represent consequences of the drug laws on certain groups.
- Identify one principle involved in the introduction of a new drug into a particular culture.
- Identify at least one new trend in substance use in the 1970's.
- Identify at least one result of chemical prohibitionist tactics.
- Identify various substances according to their classification as narcotic, analgesic, general depressant, stimulant, hallucinogen, or cannabis.
- Identify the term "tolerance."
- Identify at least one drug effect on human perception.
- Identify at least one drug effect on psychomotor functioning.
- Identify at least two variables which account for drug related risk.
- Identify at least one physiological effect of opioids.
- Identify at least one psychological effect of cannabis.
- Identify at least three reasons for using chemicals.
- Identify one way in which motives for use change as drug use patterns develop.

- Identify three factors which serve to maintain drug abuse patterns.
- Identify at least three specific consequences of continued substance abuse.
- Identify at least three commonalities of heroin and alcohol.
- Identify at least one criterion for labelling alcoholism a disease.
- Identify at least one rationale underlying methadone maintenance for treatment heroin dependence.
- Identify at least one principle of the Alcoholics Anonymous approach to alcoholism treatment.
- Identify at least one characteristic of one of the phases of an alcoholic's movement toward recovery.
- Identify at least three modalities applicable to the treatment of an opiate dependent person.
- Identify at least one advantage and one disadvantage of a therapeutic community in terms of treatment.
- Identify appropriate goals of prevention.
- Develop and list the four major perspectives of drug abuse, outlining each perspectives' goals, emphasis, and drawbacks for prevention.
- Classify and identify scare tactics, drug specific, nondrug specific, cognitive, and effective approaches to drug prevention.
- Identify at least five factors that should be considered for effective prevention education.
- Identify the role family, school, and community play in developing and incorporating the skills of valuing, decision making, communication, responsibility and success, in their respective systems.
- Define by listing, the assumptions and goals of alternative activities.
- Classify alternative activities and the skills, needs and aspirations that alternative activities might satisfy.

AUDIENCE

This course is designed to train drug abuse prevention and treatment workers (or their immediate supervisors), teachers, guidance counselors, drug educators, school psychologists, PTA/PTD members, recreation workers, youth workers, peer counselors, gang workers, youth employment counselors, parole and probation officers, outreach workers, hotline workers, people working with youth overseas, military personnel, and community service organizations.

CONTENT

Module I: Introduction and Orientation

Module II: Perspectives on Substance Use and Abuse

Module III: A Social and Historical Context for Understanding Substance Abuse in the United States

Module IV: Substance Actions

Module V: Understanding the Phenomenon of Substance Abuse

Module VI: Approaches to the Treatment of Substance Abuse

Module VII: Prevention Approaches and Strategies

Module VIII: Closure and Evaluation.

METHODOLOGY

Lectures, mediated demonstrations, guided group discussions, task group exercises, and optional reading assignments.

TIME REQUIREMENTS

Total training time is 26 hours and 30 minutes.

STAFF REQUIREMENTS

Three trainers are needed to conduct this course. There should be a trainer/trainee ratio of approximately one trainer for each ten participants. Optimum training group size is 30 participants. It is recommended that a trained and knowledgeable psychopharmacologist conduct Module IV, Substance Actions.

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INTRODUCTION

This course is a thorough revision of the courses *Drug Abuse: Fundamental Facts and Insights* and *Facts About Drug Abuse* which were produced by the National Drug Abuse Center.

On March 22, 1973, the National Commission on Marihuana and Drug Abuse stated:

The term (drug abuse) has no functional utility and has become no more than an arbitrary codeword for that drug use which is presently considered wrong. Continued use of this term, with its emotional overtones, will serve only to perpetuate confused public attitudes about drug using behavior. The Commission urges that the public and its policy makers avoid such labels and focus instead on the relative risks and social consequences of various patterns of drug taking behavior.

The present training course, in an attempt to deal with both the confusion and emotional overtones of the term "drug abuse,"¹ is titled *Drugs in Perspective*.

The National Drug Abuse Center realizes that the word "abuse" also elicits emotional overtones and subjective interpretations; however, it is most descriptive of the course content.

No single training course can provide all the known information about drugs or substances and the abuse of either. This *Drugs in Perspective* course is a basic course, designed for those who lack knowledge of the areas listed below. They are essential areas that need to be understood if one chooses to engage in drug abuse prevention, treatment, rehabilitation, drug education efforts, or simply wishes to increase knowledge of drug abuse in order to sharpen his/her perspective about the current drug abuse problem in this country. The topic areas that are covered in this course are:

- Theoretical models of viewing substance use and abuse
- Spectrum of substance abuse
- Historical and social evolution of substance use
- Principles of psychopharmacology
- Substance actions, effects: hazards and benefits
- Patterns of drug use and abuse
- Approaches to the treatment of substance abuse
- Roles of families, schools, communities, and peer groups related to drug abuse prevention

TRAINING GOAL

One of the goals of this course is to assist participants in understanding the phenomenon of substance use and abuse by providing them with a conceptual framework which acknowledges several differing perspectives.

The secondary goal of this course is to build a base of knowledge and experience that will clarify and present general information related to drugs and abuse. It is our hope that participants will be stimulated to such further knowledge from other training and education opportunities related to drug abuse.

TRAINING METHODOLOGY

The training strategy combines didactic instruction and experiential learning. Various training methods are used to make the learning process more effective: lectures, demonstrations, task group exercises, guided group discussions, and individual reading assignments. Learning activities are designed to facilitate large group and small group interactions and to provide participants with an opportunity to gain knowledge and skills they can use on the job. Each module provides adequate time for new information to be presented, analyzed and applied.

The evaluation methodology incorporates written objective tests, simulations, trainer self evaluations, and participation feedback.

COURSE MATERIALS

Training materials consist of a *Trainer's Manual* and a *Resource Manual*.

The *Trainer's Manual* contains all of the course specified information the trainer will need:

- Goals and objectives of the course
- Time/Activity sheets that contain:
 - Training schedule with time allocations
 - Training tasks and the materials and equipment needed for each task
 - Training activities that specify expected trainer and trainee behaviors
 - Logistical details
- Trainer guidelines, process notes, and instructions for each exercise
- Detailed lectures and supplementary information

The *Resource Manual* contains the basic information that the trainer and participant should master. It includes:

- Course content
- Charts and forms used in each module
- Guidelines for task performance
- Papers, articles, and handouts related to lectures
- Bibliography and glossary

TIME REQUIRED FOR COURSE DELIVERY

The *Drugs in Perspective* course is composed of eight modules. The total training time is 26 hours and 30 minutes.

The modular organization of the course lends itself to a variety of delivery approaches. The course should be delivered in one or two module segments over an extended period of time, and it could be incorporated as part of a credentialing program for drug abuse program staff. For a delivery, the course schedule would be as follows:

COURSE SCHEDULE

Day One

- Module I: Introduction and Orientation (2 hours 10 minutes)
- Module II: Perspective on Substance Use and Abuse (3 hours 10 minutes)

Day Two

- Module III: A Social and Historical Context for Understanding Substance Abuse in the United States (4 hours 10 minutes)
- Module IV: Substance Actions (4 hours 50 minutes)

Day Three

Module V: Understanding the Phenomenon of Substance Abuse (4 hours 30 minutes)

Module VI: Approaches to the Treatment of Substance Abuse (3 hours 10 minutes)

Day Four

Module VII: Prevention Approaches and Strategies (3 hours 30 minutes)

Module VIII: Closure and Evaluation (1 hour)

STAFF REQUIREMENTS

Three trainers are needed to conduct this course. There should be a trainer/trainee ratio of approximately one trainer for each ten participants. Optimum training group size is 30 participants. It is recommended that a trained and knowledgeable psychopharmacologist conduct Module IV, Substance Actions.

Because the Drugs in Perspectives course focuses on attitudes, values, knowledge, and skill development, it is essential that the trainers have experience as group leaders in both group dynamics and task oriented training. They should:

- Be familiar with several different styles of training, with different training concepts and approaches;
- Be sensitive to training concerns and issues;
- Have knowledge of drug abuse problems and drug treatment modalities;
- Have at least two years of experience in conducting group dynamics and task oriented training;
- Have experience in training trainers.

LEARNING CLIMATE

The trainer's behavior and attitudes are critical factors in establishing a productive learning climate. The trainer must *demonstrate* that he wants to have a responsive relationship, not merely assert that this is so. He must be aware of this throughout the course and should model behavior that reinforces the open, self disclosing atmosphere needed to make this course a success. *Adequate time must be allotted for setting and maintaining a cooperative climate. This will consume about one-quarter of the total training time.*

A certain level of tension is useful to help participants examine their assumptions and integrate new information. If the training climate is an open and honest atmosphere where everyone feels free and responsible for his own learning, the training activities will facilitate exploration of differing points of view; this will create the moderate level of tension necessary for the course. Trainers should not prod participants to expose too much of themselves too soon; participants should be encouraged to express thoughts and feelings when they desire and should also be allowed to be silent. Success depends on everyone's feeling free to take part actively, to comment, to criticize, to make suggestions, and to listen to one another. The trainer must be careful, however, not to exaggerate a training group's need for support. S/he must be supportive enough to permit the group to grow and learn, but not so supportive that s/he promotes overdependence.

The Relationship of Cotrainers

The relationship between cotrainers should demonstrate mutual responsibility and respect. When conflict arises based on differing points of view, the cotrainers should show through their behavior that, although differences may exist, there is a genuine appreciation and acceptance of each other that underlies all interaction.

Trainers bring to this course the result of their experiences, their beliefs, their reactions, and their feelings about themselves and their roles. Before the training begins, trainers

need to examine their own and each other's attitudes about the training issues that are discussed in this course. They need to share their expectations and personal limitations; to compare their reactions to the resource papers; and to discuss how each trainer will handle delicate issues if, and when, they arise. They should explore the areas in which they feel confident and those in which they feel vulnerable.

Suggestions for Team Building

To facilitate learning and to provide the proper support for trainees, the trainers should do some "team building" before actual training begins. This team building combines planning, rehearsing, developing interpersonal relationships, and specifying certain details.

In addition to assigning tasks, practicing exercises, and rehearsing lectures, the trainers should spend some time thinking and talking about their experiences as trainers. This is a central issue in this course. Trainers should discuss how they can be supportive of each other.

Tips to Cotrainers

Trainers should keep in mind the following points both during pre-session planning and while training the course:

- The trainers' relationships set a model for the group. (Demonstrate support for each other. Switch roles when discussing different aspects and issues of the training group. When it seems appropriate, articulate your different points of view.)
- Trainers should help each other clarify points.
- Specific, descriptive, nonblaming responses should be used.
- Whenever one trainer is in charge of an activity, the other trainers should take a supportive role, attending to group dynamics and intervening when it seems appropriate. (Avoid interrupting the other trainer except to clarify some point that seems confusing to the group.)
- Trainers should recognize that any opinion expressed in the session reflects the speaker's perception of the world.

PREPARING FOR TRAINING

It is important to follow the course as outlined. Therefore, trainers must study the materials and prepare for presentation well before the first training session.

The first page of each module is a module overview. The pages following the overview describe the training activities. The left hand column, entitled *Time/Materials*, lists the materials needed for each activity. It is very important for the trainer to read both the *Trainer's Manual* and the *Resource Manual*. These materials should be read, digested, and mastered before the training activity is conducted. (The *Resource Manual* contains handouts, task instructions, forms, and papers to be used as a reference by both the trainer and the trainees.)

The right hand column, entitled *Trainer Activities Outline*, describes the training activities that are necessary for the trainer to cover in each module. The *Trainer's Manual* contains the lectures, instructions for activities, forms, and guidelines for the trainer.

The sequence of instruction is as follows. All modules begin in the large group setting. The trainer should:

- Explain the purpose of the module;
- Cover the content, following the sequence of activities and using the materials provided and the methods suggested;
- Summarize the module to review the main points;

- Review with participants what they have learned about this module.

It is helpful to remember that the amount of time indicated for each module and topic is *approximate*. More or less time may be required or desired. While some flexibility is permissible, scheduling must allow for adequate coverage of the topics in the selected modules.

THE FIRST TRAINING SESSION

The following suggestions may be helpful:

- Review the *Trainer's Manual* and read the *Resource Manual*.
- Review the first page of each module and determine the relationship of the module to the previous module, subsequent modules, and the total course.
- Prepare course goals and schedule on newsprint.
- Be sure that all the materials are prepared, that equipment is working, and that the space needed is properly set up for the training.
- Prepare flipcharts before the session. If an easel is not available, paper may be tacked or taped to the wall.
- If audio-visual equipment is used, make sure it will be available and operational when needed. Make sure that you know how to use the equipment.
- Review the sequence of activities, the points to be discussed, and materials several times before the session, to become thoroughly familiar with the session and its content.
- During the presentation keep in mind the structure of the session, i.e., introduction, major points, summary.

For the presentation to be effective, the trainer must:

- Remember that he is dealing with adults;
- Be thoroughly familiar with the resource materials;
- Prepare adequately for each module so that the course design is followed.

FEEDBACK: THE ART OF GIVING AND RECEIVING HELP¹

Feedback is a way of helping another person to consider changing his behavior. It is communication to a person that gives him information about his or her behavior and its effect. As in a guided missile system, feedback helps an individual know whether his/her behavior is having the effect that s/he wants; it tells him/her whether s/he is "on target," as s/he strives to achieve his/her goals.

CRITERIA FOR USEFUL FEEDBACK

The giving and receiving of feedback is a skill that can be acquired. When feedback is attempted at the wrong time or given in the wrong way, the results will be useless at best and may even be disastrous. Therefore, developing feedback skills is important. Here are some criteria for useful feedback.

- It is descriptive rather than evaluative. Good feedback focuses on what the individual did; it does not translate his behavior into a statement about what he is. "You have interrupted three people in the last half hour" is probably not something that a person really wants to hear, but is likely to be more helpful than, "You are an ill-mannered oaf."
- It focuses on the feelings generated in the person who has experienced the behavior and who is offering the feedback. "When you interrupt me I feel frustrated," gives the individual clear information about the effect of his behavior, while at the same time leaving him free to decide what he wants to do about that effect.
- It is specific rather than general. For example, it is probably more useful to learn that you "talk too much" than to have someone describe you as "dominating."
- It is directed toward behavior that the receiver can do something about. Frustration is increased when a person is reminded of some shortcoming over which he has no control.
- It is solicited rather than imposed. Feedback is most useful when the receiver feels that he needs and wants it, when he himself asks a question that those observing him can answer.
- It is well timed. In general, feedback is most useful when given as soon as possible after the questioned behavior. Timing depends on the receiver's readiness to hear the feedback, the support available from others, and so on.
- It is checked to ensure clear communication. One way of doing this is to have the receiver try to rephrase the feedback in question to see whether the receiver's version corresponds to what the sender meant.
- Both giver and receiver have an opportunity to check its accuracy with others in the group. Thus, the receiver will know whether this is one person's impression or an impression shared by others.
- It should not be given primarily to "dump" or "unload" on another. If you feel you have to say this to the other person, ask yourself who it is you are trying to "help."
- Feedback does not ask "Why?" It focuses on one's behavior and the reactions to that behavior. To theorize about or ask why a person does a certain thing is to plumb the depths of motivation and, perhaps, of the unconscious. Avoiding the "whys" will help one to avoid the possible damage that can result from playing amateur psychologist.

Given the premise that properly given feedback can be a fine way to learn about oneself, what are the reasons that we resist it? For one thing, it is hard to admit our faults to ourselves. It is even harder to admit them to someone else. We are not sure that the other person can be trusted or that his observations are valid. We may be afraid of learning what others think of us; we often expect to hear only negative opinions about ourselves, tending to overlook our positive qualities.

There's a second side to this exchange: It is not always easy to give feedback to others. Most of us like to give advice. Doing so suggests that we are competent and important. We get caught up in a "telling" role easily enough without testing whether our advice is appropriate to the issue or to the abilities, the fears, or the powers of the person we are trying to help.

If a person whom we are trying to help becomes defensive, we may try to argue or pressure him. Defensiveness or denial on the part of the receiver is a clear indication that we are going about trying to be helpful in the wrong way; our timing may be off or we may be simply mistaken about his behavior; but, in any case, it is best to desist until we can reevaluate the situation. If we respond to the receiver's resistance with more pressure, resistance will only increase.

Feedback takes into account the needs of both the receiver and the giver. Positive feedback is welcomed by the receiver when it is genuine. If feedback is given in a training setting, under the conditions described here, it can become one of the primary means of learning about the self.

¹Cyril R. Mill. This material is taken from the *Reading Book*, 1972 Edition, of the NTL Institute for Applied Behavioral Science, associated with the National Education Association.

FEEDBACK: TRAINER GUIDELINES

The most significant criterion feedback must fulfill is that it is intended to be helpful.

The other person needs to understand what is said:

- A. Should be specific rather than general.
- B. Recent examples are more easily understood than old ones.
- C. Sender should check with recipient to ensure accuracy and clarity.

Recipient needs to be willing and able to accept feedback:

- A. Should be descriptive rather than judgmental; describe behavior and own response to it.
- B. Focus on behavior, rather than on the person.
- C. Method - one that indicates true interest and caring is more easily accepted; includes tone, expression, nonverbal.
- D. Timing - does recipient appear to be in a receptive state? Solicited feedback is more useful than unsolicited.

Recipient needs to be able to do something about his/her behavior if s/he chooses. Some things cannot readily be changed and feedback in these areas is generally not useful.

JUDGMENTAL FEEDBACK CHARACTERISTICS

Demeans the recipient;
Keeps all systems closed;
Maintains poor eye contact; looks at objects rather than person(s);
Verbally or nonverbally shows fatigue, boredom (sighs);
Uses an authoritarian tone;
Expresses approval/disapproval in judgmental or moral tone.

DESCRIPTIVE FEEDBACK CHARACTERISTICS

Values the recipient;
Keeps all systems open;
Maintains good eye contact;
Sends supportive messages nonverbally;
Is sensitive to the needs of the other;
Uses a nonthreatening tone;
Speaks of behavior without making general value judgments.

In describing specific behaviors and their effect on you, you run less risk of making inaccurate and unfair value judgments. "When Jerry was telling about his accident, you interrupted him four times. I found this frustrating." vs. "You are aggressive" or "You talk too much."

TRAINER QUESTIONNAIRE

The Trainer Questionnaire is designed to help the trainers examine the dynamics present in the cotraining situation. Trainers should use it to prepare to train the course and also to examine the dynamics occurring during each day's training.

For each module trainers should ask themselves:

- How am I feeling about myself right now?
- How do I feel about my cotrainers and our relationship?

With regard to the participants, the trainer should consider the questions in the following sections.

WHAT TO LOOK FOR IN GROUPS

All human interactions have two major ingredients: content and process. The first deals with the subject matter or the task with which the group is working. In most interactions, the main focus is on the content. The second ingredient, process, is concerned with what is happening between and to group members while the group is working. The group process, as it emerges in this course, encompasses tone, atmosphere, influence, participation, styles of influence, leadership struggles, conflict, competition, and cooperation. In most interactions, very little attention is paid to process, even when it is the major cause of ineffective group action. Sensitivity to group process will better enable trainers to diagnose group problems early and deal with them more effectively, and will enable participants to be more effective participants. Below are some guidelines to help trainers analyze group behavior.

Participation

Verbal participation is one indication of involvement. Trainers should look for differing levels of participation within the group.¹

- Who participates more than others? Who participates less?
- Do you see any shift in participation, i.e., frequent participators becoming quiet, infrequent participators suddenly becoming talkative? Do you see any possible reason for this in the group's interaction?
- Does anyone make contributions that receive no response or recognition? What effect does this have on the member?
- How are those who remain silent treated? How is there silence interpreted (consent, disagreement, disinterest, fear, and so forth)?
- Who talks to whom? Do you see any reason for this in the group's interactions?
- Who keeps the discussion going? Why? Do you see any reason for this in the group's interactions?

Influence

Influence and participation are not the same. Some people may speak very little, yet they capture the attention of the whole group. Others may talk a lot but are generally not listened to by other members.

- Which members seem to have a great deal of influence? Which members have little influence? Is there any shifting of influence?
- Do you see any rivalry in the group? Is there a struggle for leadership? What effect does it have on other group members?

Styles of Influence

Influence can take many forms. It can be positive or negative; it can enlist the support or cooperation of others or alienate them. How a person attempts to influence another may be the determining factor in the other's receptivity. There are at least four styles of influence that frequently emerge in groups:

- *Autocratic.* Does anyone attempt to impose his will or values on others or try to push them to support his decisions? Who evaluates or passes judgment on other group members? Do any members block action when it is not moving in the direction they desire? Who pushes to "get the group organized?"
- *Peacemaking.* Who eagerly supports others decisions? Does anyone consistently try to avoid conflict or having unpleasant feelings being expressed? Is any member deferential toward other group members (thus giving others power)? Do any members avoid giving negative feedback, i.e., will they be honest only when they have positive feedback to give?
- *Laissez-faire.* Are any group members withdrawn and uninvolved? Does any group member go along with group decisions without seeming to commit himself one way or the other? Who does not initiate activity, or participates mechanically and only in response to another member's question?
- *Democratic.* Does anyone try to include everyone in a group discussion or decision? Who expresses his feelings and opinions openly and directly without evaluating or judging others? When feelings run high and tensions mount, which members attempt to deal with the conflict?

Decisionmaking Procedures

Many decisions are made in groups before full consideration has been given to the effects these decisions will have on other members. Some people try to impose their decisions on the group, while others want all members to participate or share in the decisions that are made.

- Does anyone make a decision and carry it out without checking with other group members? (For example, does anyone decide on the topic to be discussed and immediately begin to talk about it?) What effect does this have on others?
- Who supports other members' suggestions or decisions? Does this support result in two of the members' deciding the topic or activity for the group? How does this affect others?
- Is there any evidence of a majority's pushing a decision through over other members' objections? Do they call for a vote?
- Is there any attempt to get all members to agree on a decision? What effect does this seem to have on the group?

Membership

A major concern for group members is the degree to which they are accepted by the group. Different patterns of interaction may develop in the group that give clues to the degree and kind of membership.

- Are there any subgroups? (Two or three members may join together for a period of time during which they consistently agree and support each other. Or several members may consistently disagree and oppose one another.)
- Do some people seem to be "outside" the group? Are some "in"? How are those "outside" treated?

Feelings

During any group discussion, feelings frequently are generated by the interactions between

members. Although these feelings are discussed rarely, the tone of voice, facial expressions, gestures, and many other forms of nonverbal cues can help observers understand what participants are feeling.

- What signs of feelings do you observe in group members (e.g., anger, irritation, frustration, warmth, affection, excitement, boredom, defensiveness, competitiveness)?
- Do you see any attempts by group members to block the expression of feelings, particularly painful feelings? How is this done? Does anyone do this consistently?

Task Functions

There are certain functions that should be carried out in order to get the job done. The trainers will improve their understanding of the process if they can see how these functions are accomplished.

- Does anyone ask for or suggest the best way to proceed or to tackle a problem?
- Does anyone attempt to summarize what has been covered or what has been going on in the group?
- Is there any giving or asking for facts, ideas, opinions, feelings, feedback, or searching for alternatives?

Maintenance Functions

These functions are important to the morale of the group. Their performance (or the lack thereof) can maintain or destroy good and harmonious working relationships among the members. When carried out properly, these functions can enhance other member's ability to contribute maximally.

- Who helps others get into the discussion?
- Who cuts off others or interrupts them?
- Who helps keep the group on the topic? Does anyone try to change the subject?
- How well are members getting their ideas across? Are some members preoccupied and not listening? Are there any attempts by group members to help others clarify their ideas?
- How are ideas rejected? How do members react when their ideas are not accepted? Do members attempt to support others when they reject their ideas?

Group Atmosphere

The way a group works together creates a discernible atmosphere; trying to describe this atmosphere will give the trainer some insight into what people do and don't like about the training environment.

- Are there group members who seem to prefer a friendly, congenial atmosphere? Is there any attempt to suppress conflict or unpleasant feelings?
- Do any members seem to prefer an atmosphere of conflict and disagreements? Do they provoke or annoy others?
- Do people seem involved and interested? What is the atmosphere like?
- Are certain topics avoided in the group (e.g., sex, talk about immediate feelings in the group, discussing the leader's behavior)? Who seems to reinforce this avoidance? How?

- Are group members overly nice or polite to each other? Are only pleasurable feelings expressed? Do members agree with each other too readily? What happens when members disagree?
- Do you see norms operating about participation or the kinds of questions that are allowed (e.g., "If I talk, you must talk"; or "If I tell my problems you have to tell yours.") Do members feel free to ask each other about their feelings, or are questions restricted to intellectual topics or events outside of the group?

1. Adapted from *The 1972 Annual Handbook for Group Facilitators*, J.W. Pfeiffer and J.C. Jones, Eds. La Jolla, Ca.: University Associates Publishers, Inc., 1972, 21-26.

MODULE I: INTRODUCTION AND ORIENTATION

PERSPECTIVE

The purpose of this module is to orient participants to the course, Drugs in Perspective (DIP), establish a climate conducive to learning, describe the training process, provide a vehicle for future exchange of knowledge and opinions, and provide a forum for identification of participants' needs, questions, expectations, and learning goals.

CONTENTS

- Registration (30 minutes)
- Administering the Pretest (30 minutes)
- Formal Introduction (10 minutes)
- Optional Structured Experience: Getting Acquainted Triads (15 minutes)
- Overview: Goals and Objectives (15 minutes)
- Individual Exercise: Goal Setting (30 minutes)

Total Time: 2 hours, 10 minutes

OBJECTIVES

Using the information presented in Module I as criteria, at the end of this module, and without the aid of notes, participants will be able to:

1. Identify the purpose of the DIP course.
2. Identify at least two goals of the DIP course.
3. Identify at least three content areas in the DIP course.
4. Identify at least one personal goal in attending the training.

MATERIALS REQUIRED

- Registration forms
- Coffee and tea
- Test administration guidelines
- Pretest forms A and B
- Pretest answer sheets
- Pencils and paper for each participant
- Newsprint
- Markers
- Masking tape
- ID tags
- Large training room with tables and chairs to seat 30 or more participants comfortably.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
Registration Forms	<u>REGISTRATION</u>
Coffee and Tea	Registration should be 30 minutes prior to the delivery of Module I.
Name Tags	• Greet participants as they arrive. • Ask each participant to sign registration form. • Check names off the list of participants. • Ask each participant to fill out and wear a name tag. • Ask participants to proceed to the large group meeting room, and help themselves to coffee or tea.
Magic Markers	
30 minutes	<u>PRETEST</u>
Test Administration Guidelines	• Explain the reasons for pretest and posttest (refer to Test Administration Guidelines, found in the DIP Trainer's Manual, page 267).
Pretest Forms A and B	<u>NOTE:</u> The lead trainer should not administer the pretest.
Pretest Answer Sheets	• Read the pretest instructions aloud and answer questions regarding the pretest. • Ask participants to complete the pretest individually and return it to you. • Remind participants to indicate which test (A or B) they complete, and to indicate "pretest" on the upper right side of the answer form. • Distribute resource materials.
Pencils	
Form I-A	
10-15 minutes	<u>UNSTRUCTURED INTRODUCTIONS</u>
	• Introduce yourself (the trainer) and state name and very brief account of your background and one thing you do (for yourself) for fun. Ask someone to start - "go around" the room and ask participants to state their name, title, organization, and <u>only</u> one thing they do for <u>fun</u>. • Announce to the group, that, as a result of the "go around" it is obvious that there are a lot of valuable resources in the room. • "We" can learn by sharing our experiences and our information with each other. You (the trainer) do not have all the answers. • Pick two or three individuals in the room and ask them more about their experience (job/position). Finally, state that you may call upon them as a resource throughout the DIP course.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
15 minutes	NOTE: You may want to do the above during the formal introductions. <u>STRUCTURED EXPERIENCE: GETTING ACQUAINTED TRIADS</u> • Explain that this structured experience has the following goals: 1. To learn about each other, 2. To facilitate the involvement of participants in a newly formed group, 3. To develop a compatible climate and readiness for interaction by sharing some personal information. • Give the following instructions: <u>Group size:</u> Unlimited number of triads. <u>Time required:</u> 15 minutes. <u>Physical Setting:</u> Have triads separate from one another, as much as possible, to avoid the influence of outside noises. <u>Rule:</u> Criterion for triad formation is not to know the other members of the triad. <u>Process:</u> (1) Participants in each group name themselves A, B, and C <u>PART 1</u> (2) Participant A takes 3 minutes to tell participants B and C the following: a) What he/she likes about his/her job. b) Why he/she is in the particular field. c) What he/she hopes to get from the training. (3) Participants B and C repeat this process in turn. <u>PART 2</u> (4) Participants B and C take 2 minutes to tell A what they heard him/her say and what they infer from what was said. They then say one positive thing about participant A. (5) In turn, participants C and A and A and B repeat this process. <u>TRAINER'S NOTE:</u> Getting acquainted triads. Keep structure and time in this exercise going. Call time when nearing the end of 5-minute cycle. Move around triads to get a feel for the groups. Call first 1-minute warning. Have participants resume their seats. • Ask the whole group how that was for them. • Suggest that, "In view of time we will not report out from triad, and that throughout the training everybody will get a chance to meet everyone."

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	<u>RESULT</u> This exercise has set up the participants to begin to think about: • Why they are here, • What the goals of this workshop are, • Why they work in this field, • What their goals are. Participants should get acquainted slowly, experience slight feedback from others. No need for processing on this exercise because, individually, every participant is processing his/her own results and needs time. Optional Exercise: See next page. <u>TRAINER'S NOTE:</u> You may substitute for the unstructured introduction any icebreaker exercise that serves the purpose of introducing all of the participants. See the Trainer's Manual, page 21.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
10 minutes <u>Structured Experience:</u>	Trainers may choose to discard the <u>Forma, Introduction and structural experience - Getting Acquainted Triads</u> for the following exercise. INSTRUCTIONS: Have participants form groups of threes (triads) and each person state the following (3 minutes each): • Name/organization • What is the greatest problem or challenge you currently face on the job? (Concerns related to job and other people may ask questions.) Inventory the problem/challenges on a flipchart. Have all three participants put this on same sheet. <u>TRAINER'S NOTE:</u> During the Introductions, instructor should inventory aloud (go around) the problems/challenges mentioned on flipcharts. This makes it possible to relate course concepts to the actual problem they currently have (since course overview is next with goals and objectives).
15 minutes	<u>OVERVIEW: THE DIP COURSE</u> • Describe your role and that of your cotrainer(s). • Discuss ground rules. The ground rules for this course are: - Training sessions will begin on time. - Each participant can learn from and share with others. - Differing points of view will emerge and can be explored in a nonjudgmental way. - It is all right to disagree with the viewpoints presented. - If you have questions or if something seems to be unclear, feel free to discuss these at any time. - Discussion is a valuable part of the learning process. - At the end of each day, some time should be devoted to sharing feedback about the day's training. • Discuss logistics (e.g., breaks, location of rest-rooms, coffee, parking). • Give a brief overview identifying the following: - the purpose and focus of training - course schedule

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	<i>o State the following :</i> - Diverse theories and perspectives regarding drugs and drug abuse will be presented. - Points of view may be discussed which conflict with those individuals may espouse, those they have heard elsewhere. - Relatively few facts about drug abuse are irrefutable, and not many theories are universally accepted. - Research about drug actions and hazards tends to be outdated rapidly. - The purpose of this course is to offer a comprehensive presentation of the many facts, theories, assumptions, definitions, and treatment approaches that have been important in the area of drug abuse. It is designed to assist participants not only in acquiring a knowledge and comprehension of basic facts, but also in developing the necessary objectivity to view the traditionally emotional and moral aspects of drug use and abuse in perspective.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
5 minutes	<u>STRETCH BREAK</u> NOTE: From this point on the <i>Trainer's Manual</i> will not build in breaks. It is the responsibility of the training team to be sensitive to the needs of trainees in this respect. Some hints that a break is indicated are snoring, gazing into space, excessive fidgeting, heckling the trainers or frequent glances at the clock.
30 minutes	<u>STRUCTURED EXERCISE: GOAL SETTING</u> Explain that this exercise has the following goals: • To make participants' thinking processes and decisions more goal oriented. • Give direction and allow every participant his or her own goals and outcomes. • Let participants continue the next step of processing out the last experience. Give the following Instructions: 1. Please read in your manual "Keep your Goal in Mind," Personal Goal Setting Guide page 8 . 2. Follow the eight steps. Use your imagination. 3. When you have finished, answer the questions in the goal setting exercise. 4. Form triads with people you have not met before. 5. Each member of the triad should do the following: a) State what you hope to gain for yourself from this workshop. b) Specify the goals which will assure your payoff for this workshop. 6. You will have fifteen minutes to complete this task after which the triads will report out to the entire group. Process the exercise as follows: 1. Have each triad report their goals for the workshop. 2. Record these on a flipchart. 3. Discuss the likelihood of individual goals being met in terms of the course goals, objectives, and content. 4. Instruct participants to keep their goals in mind throughout the course. They will have the opportunity at the end of the course to see if they were met. END OF MODULE

"KEEP YOUR GOAL IN MIND"

Personal Goal Setting Guide

1. Stimulus. What are you aware of that stimulates you to think about change?
2. Visualization. Fantasize that you have made the changes you want to make. Experience being there.
3. Deterrents. Note any obstacles appearing in the fantasy, or discouraging thoughts or feelings.
4. Options. Identify alternatives (5 is a good number) for each obstacle or negative thought, while keeping your goal in mind.
5. Resources. What do you need, including information, time, internal or external support, money, paperwork?
6. Priorities. What do you need to do first? Then what? List all steps to reach the goal.
7. Checkpoints. Set a timetable and complete this statement: "I'll know that I have reached my goal when. . ."
8. Completion. Return to Stimulus (1). Do you experience a sense of satisfaction with your planning? If not, repeat 3 through 7. If so, you are well on your way. Keep your goal in mind!

SOME OTHER ICEBREAKER ACTIVITIES

The activities suggested below can be helpful in at least three ways:

- As icebreakers,
- As aids for participants to begin to know each other,
- As aids in identifying group members as possible future resources.

Besides, these activities are fun. This list is just a beginning, and the length of your own list will grow with your experiences.

1. Paired Introduction

Each person meets and gets to know one other person and in turn introduces his partner to the entire group.

2. Dyad and Quartet

Same as above, but instead of introducing his partner to the entire group, he introduces him to another dyad.

3. One Minute Autobiography

Break into groups of about a dozen. Each person is given one minute to tell about himself. Use a timekeeper; no one should talk longer than one minute. Restrictions can be placed on the subject matter (for instance, nothing about job, family, home town, hobbies). These restrictions enable participants to focus on attitudes and values.

4. Depth Unfolding Process

Use this activity in small groups, because it takes five minutes per person. In the first three minutes, tell what has brought you to this stage in your life. One minute is used to describe your happiest moment. The last minute is used to answer questions from others. The leader discloses first, to aid in participant comfort.

5. Structured Introductions

In dyads, small groups, or in the large group, participants can talk about their happiest moments, write their own epitaphs, write a press release about themselves, etc.

6. Biographical Sketch

Each person draws a "picture" of his life on newsprint with crayons or magic markers, using stick figures and symbols.

7. Name Circle

Participants sit in a large circle. The leader begins by stating the name of the person seated to his right, followed by his own name. The person to his right repeats the leader's name, his own name, and adds the name of the person seated to his right. This process is repeated around the entire circle.

8. Sandwich Boards

Each person writes on a sheet of newsprint "Things I Know" (about the content and purposes of the course, areas of personal expertise, and so forth). On a second sheet of newsprint, he writes "Things I Want to Know." The sheets are joined with tape, sandwich board style, and the participants mingle silently, identifying

resources and getting to know one another.

9. Consensus Based Group Objectives

Each person privately lists five (the number is optional) personal objectives for the course. He shares them with a partner, and they arrive at five mutual objectives. The dyads go to quartets, then to octets. The octets report out their objectives (reached by consensus) and a total group set of objectives is formed. This activity can aid in checking the contract, and can help terminate the problem of hidden agendas.

10. Sentence Completions

A prepared list of sentences ("Anyone who smokes in front of his children. . .") is spun around the group or used in small groups.

MODULE II

PERSPECTIVES ON SUBSTANCE USE AND ABUSE

PERSPECTIVE

The purpose of this module is to provide information on and give participants new ways to consider the phenomenon of substance use.

CONTENT

- Overview of Module II (10 minutes)
- Lecture/Discussion: The "Problem" with Definitions and Perceptions (25 minutes)
- Lecture/Discussion: Perspectives (20 minutes)
- Individual Exercise: The Fifth Perspective (45 minutes)
- Large Group Discussion: Report Out From Exercise (10 minutes)
- Lecture/Discussion: Spectrum of Use (20 minutes)
- Structured Experience: The Dependency Checklist (25 minutes)
- Lecture/Discussion: Physiological and Psychological Dependence (30 minutes)
- Summary of Module II (5 minutes)

TOTAL TIME: 3 hours, 10 minutes

OBJECTIVES

Using the information presented in Module II as criteria, at the end of this module, and without the aid of notes, participants will be able to:

1. Identify two components of the spectrum of drug use.
2. Identify four different perspectives for understanding drug use.
3. Identify a definition for the word "drug."
4. Identify at least two characteristics of physiological dependence.
5. Identify at least two characteristics of psychological dependence.

MATERIALS REQUIRED

- The Dependency Checklist
- "Drugs Demystified" by Helen Nowlis, Chapter 1.
- Markers, tape, newsprint
- "Perspectives" written on newsprint
- "Physical and Psychological Dependence" written on newsprint
- "Drug," "Drug Abuse," and "Drug Use" written on newsprint
- "Non use, Experimental Use, Casual Use, Regular Use, and Compulsive Use," written on newsprint
- Small and large group meeting space

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
5 minutes	<u>OVERVIEW: MODULE II</u> ● Review the objectives of Module II with the total group. ● Introduce the module as follows: In this module we'll concentrate on finding new ways to consider the phenomenon of drug abuse. It is hoped that this effort will allow us to examine some of the inaccurate images and unsound assumptions about substance abuse and use that can impede progress in dealing with problems associated with substance abuse.
10 minutes	<u>LECTURE: THE PROBLEM WITH DEFINITIONS AND PERCEPTIONS</u> <u>NOTE:</u> The following information should be presented to the large group. While salient points from the Nowlis resource paper are abstracted here, it is essential that the trainer be thoroughly familiar with the Nowlis readings. Although participants might have to read this, or it must not be assumed that they have digested it fully. ● Present a brief lecture highlighting the following points: ● Definition of substance use as "problem" - societies have defined use of certain substances by certain people for certain reasons as a problem - focus on characteristics of user and reasons for use - problem may involve new perspective of familiar practice or emergence of new user population ● Effective problem solving requires careful definition of problem in objective terms - drug problems have been ill defined in global or value laden terms - disagreement and controversy prevail ● Any approach to the problem must take into account the basic elements in the use of any substance - substance - individual using it - social and cultural context of use ● Each of these elements is complex with perception of them depending on the perspective of the viewer - pharmacologists recognize all aspects of particular substances while general public tends to categorize substances as good/safe versus bad/dangerous and group all substances and uses accordingly

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
5 minutes	- psychologists or behavioral scientists see individuals as complex and varied. Drug use is seen as one aspect of human behavior. - social scientists recognize complex variations in social and cultural context of drug use • Ask group members if they have any questions about what was presented thus far. If so, respond accordingly. • Write the following on newsprint PERSPECTIVES 1. Moral Legal Perspectives 2. Disease or Public Health Perspective 3. Psychosocial Perspective 4. Sociocultural Perspective
20 minutes	<u>LECTURE/DISCUSSION: PERSPECTIVES</u> • Present the lecturette based on the Nowlis resource paper, highlighting the following points: • Four major perspectives on substance use and interacting components - each varies in assumptions about drugs, people, social and cultural context, and the nature and importance of each - these views are examples of the diversity of assumptions and perspectives with regard to substance - each set of assumptions has implications in terms of social action • Moral Legal Perspective - major importance of drug, classified as "safe," or "dangerous," and effects - goal to keep drugs away from people - people uninformed, unwilling, or deviant victims - protection via legal controls - deterrents are control of availability of drug, increase in cost of drug, punishment, warning of harm - dichotomized as "licit" or "illicit" - individuals classified as "users" or "non users" without regard to drug or pattern • Disease or Public Health Perspective

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	- follows infectious disease perspective - drug as "agent" assumes major role - no distinction between "licit" and "illicit" - drugs of concern are dependence producing - caffeine, alcohol, nicotine included but distinguished from other substances in terms of social acceptability - individual viewed as vulnerable or not vulnerable - "vaccination" aimed at vulnerable individuals (e.g. prevention oriented education; concept of antagonist implants) - drug user treated and cured as a medical problem ● Psychosocial Perspective - emphasis on individual as active agent - focus on meaning and function of drug use to the individual - distinguishes among amounts, patterns, functions - context of use viewed in terms of response of other people, e.g., families, peer groups, communities, to user - focus on non drug specific response to drug use applicable to other destructive behavior ● Sociocultural Perspective - specific drugs gain significance from way society defines and responds to use and users - socially proscribed drug use seen as deviant, excessive, destructive behavior - recognize variance from culture to culture - stresses socioeconomic and environmental conditions as reasons for psychological stress ● Summary - each perspective represents a particular view of drug use and response to it - if the challenge is to keep drugs away from humans, laws and law enforcement will be given a major role. If it is to keep humans away from drugs, the responsibility will be that of those skilled in the behavioral sciences. If it is to create an environment in which the needs drug use serves are served better by behavior involving less risk, less potential for harm to the individual and the society, every institution has a role to play.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
45 minutes	● Four important new trends are developing in definition and response to socially disapproved and destructive drug use: 1. Defining the problem in psychosocial terms (rather than pharmacological, legal or medical terms), placing increasing emphasis on drug use as a behavior pattern. 2. Adopting as a primary goal not the prevention of drug use, but the reduction of the problems associated with <i>destructive</i> drug use. 3. Increasing willingness to put socially disapproved drug use by youth into the context of use of all drugs, licit and illicit, by people of all ages. 4. Willingness to include alcohol as a drug, and to consider the implications of its use by both adults and youth. ● These recognize that traditional responses by traditional institutions have been ineffective. ● Ask participants if they have questions about the definition. If so, respond accordingly. Introduce Individual Exercise Based on Perspectives I-IV <u>INDIVIDUAL EXERCISE: THE FIFTH PERSPECTIVE</u> ● Have participants break up into groups of four and individually fill out the Fifth Perspective Sheet on page in participant's manual. Allow 10 minutes for the above. ● Once the Fifth Perspective is completed, have the groups of four discuss briefly what they discovered. ● Have the groups (four's) formulate their group's Operational Definition of the following: - drugs - drug abuse - drug use ● Pick a spokesperson to represent each group ● Report out. Have all groups define and summarize the three definitions and give one word descriptions if possible. ● Tape three sheets on wall on "Drugs," "Drug Abuse," and "Drug Use." Write one word or short phrase, defining the individual group's response for each operational definition. ● Allow enough time for discussion and Q and A. ● Announce that there are no wrong answers.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	• <i>State the following at the conclusion of the exercise :</i> You have just heard the lectures on the moral legal, the public health, the psychosocial and the socio-cultural perspective. During the lecture/discussion you probably pictured in your mind scenes of various drug issues that you either heard about, saw for yourself, and/or felt as you have been in the field. With this in your mind, clarify your own attitudes on the following issues. Keep in mind that there are no rules or wrong/right answers. These attitudes and beliefs are yours; you have a right to them just as the others in your group have a right to theirs. • <i>Be sure to allow for the participants' freedom of expression and rights to his/her own belief.</i> • <i>Place the various groups and keep time. Aid people who are having difficulty responding to the questions.</i>

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE						
10 minutes	<u>LARGE GROUP DISCUSSION: REPORT OUT FROM EXERCISE</u> • In processing the exercise, make the following points if participants do not : - Individuals may have experienced difficulty in agreeing or disagreeing with statements. - Individuals may have found that their attitudes cut across two or more perspectives . - The four perspectives presented were not intended to be all-inclusive or paradigms in which there were no contradictions. - Operating narrowly from one perspective does not seem to be an effective means of viewing a phenomenon as controversial and with as many implications as drug use and abuse. - Small groups may have experienced difficulty and polemics attempting to reach consensus on an operational terminology because each member operates from his/her own set of beliefs, attitudes, and experiential learning. - Either through ignorance or intent, official and unofficial information about psychoactive drugs is too often inaccurate, slanted, or frightening rather than factual. Even the scientific terms used to describe drug use have been given such emotional and symbolic connotations that they can be used as weapons. A clarification of the terms used is needed, beginning with a straightforward, culture free definition of the words "drug use" and "drug abuse." Our purpose is to accept some operational definitions to allow us to put "drugs in perspective." (Display the following definitions on a flipchart. Avoid spending too much time arguing about semantics or nuances of meaning. If you choose you may replace these definitions with others you find more acceptable as long as they are accurate.) DEFINITIONS¹ <table border="0"> <tr> <td>SUBSTANCE/DRUG</td><td>Any chemical that modifies the function of living tissues, resulting in physiological behavioral change.</td></tr> <tr> <td>SUBSTANCE/DRUG USE</td><td>Where the desired effects of a drug can be realized with minimal hazard, whether or not used therapeutically, legally, or as prescribed by a physician.</td></tr> <tr> <td>SUBSTANCE/DRUG ABUSE</td><td>Where drugs are taken or administered under circumstances and at doses that increase significantly their hazard potential, whether or not used therapeutically, legally, or as prescribed by a physician.</td></tr> </table>	SUBSTANCE/DRUG	Any chemical that modifies the function of living tissues, resulting in physiological behavioral change.	SUBSTANCE/DRUG USE	Where the desired effects of a drug can be realized with minimal hazard, whether or not used therapeutically, legally, or as prescribed by a physician.	SUBSTANCE/DRUG ABUSE	Where drugs are taken or administered under circumstances and at doses that increase significantly their hazard potential, whether or not used therapeutically, legally, or as prescribed by a physician.
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TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
20 minutes	<u>LECTURE/DISCUSSION: SPECTRUM OF USE</u> ● Present a brief lecture based on the Nowlis resource paper highlighting the following points: ● Having presented several general, theoretical perspectives from which to consider drug use it would be helpful to consider the phenomenon more closely. <i>(NOTE: The model used here represents a general conceptual framework from which to consider substance use. More specific information, including a differentiation between drugs and alcohol patterns of use will be presented in Module V.)</i> ● To categorize all people as users or nonusers is not helpful in understanding drug use. - Most people in most cultures use one or more psychoactive substances. - Different people use different substances in different amounts for different reasons under different circumstances. - Most people do not use substances proscribed by their culture - if they did the culture would be modified to include use. ● One school of thought maintains that few factors have been clearly and cleanly identified as <u>necessary</u> or <u>sufficient to predict use of a particular substance or substances in general</u>, this includes - psychological, genetic, biochemical factors - social background, growth and development, familial factors - deprivation, prejudice, poverty, or other environmental or cultural factors ● Some theorists on the other hand are exploring the concept of "predisposition" in which certain individuals because of genetic, biochemical, environmental, or psychological behavioral factors are considered to be "high risk" with regard to substance abuse or dependence potential. Specific factors would account for whether an individual would be attracted or not attracted to a particular drug. The disease model of alcoholism discussed in Module V is a good example of this concept. ● For the moment, in order to put substance use in perspective, it is necessary to make some gross distinctions. - Nonuse some people obviously choose not to use any substances for moral, religious, practical or other reasons people may choose to be nonusers of one substance

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	but users of yet another - Experimental use, defined as one to three times The initial reason to try a drug depends more on the value an individual places on it than its pharmacologic properties Social factors seem to be significant, e.g., peer pressure as acceptance Curiosity and availability are also factors Majority of experimenters do not become users- the effects are not valued - Casual or occasional use, defined as once or twice a month Use tends to be spontaneous and in social context where drugs are available Reasons for use primarily social, e.g., friends who use and approve, facilitation of social interaction - Regular use defined as weekly or several times a week Distinguished from heavy use on basis of frequency of use and particular substance used Hard to distinguish between occasional and regular Concept of psychological dependence may come into play: User will go out of his way to get the drug Tends to have more to do with the pharmacologic properties of the substance, i.e., what it does for the user - Heavy or compulsive use, which implies daily use although it could include spree or binge type use Only a minority of users become compulsive users Central factor is degree to which use dominates the life of the individual Preoccupation with drugs may be seen as mechanism to avoid other issues (e.g., responsibility, stress), or a manifestation of psychopathology At least, psychological and/or physiological dependence are probably critical factors • State the following : • Before taking a closer look at the concept of physiological and psychological dependency it will be helpful to place the terms "dependence" and "dependent behavior" in a practical, mundane context • Let us define dependence as "a relationship to or

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
25 minutes	"reliance on something in such a way that without it a person would experience discomfort." Let us define dependent behavior as: <i>any behavior that if stopped, would produce discomfort.</i> Let us define discomfort in the very broadest terms, as ranging from a sense of uneasiness to actual, objective, physical symptoms. As a sample of minimum discomfort, let us consider such habits as reading the comics or watching a morning news program, and then not being able to get the paper or watch TV. For most of us, maximum discomfort might be experienced by giving up cigarettes, coffee, or the daily cocktail. As a prelude to the small group exercise, let us take a few minutes to consider our own dependencies. <u>STRUCTURED EXPERIENCE: THE DEPENDENCY CHECKLIST</u> <i>Explain the small group activities:</i> • When you break into small groups you will be working with <i>The Dependency Checklist</i> in your <i>Resource Manual</i>, page 21 . You will be doing two things. The first will be to order some "dependencies" according to various possible reasons for their existence. You need not respond to every item on the dependency checklist, and you are free to assign as many different reasons to each one as you feel is appropriate. Also, feel free to add your own items to each side of the list. The second purpose of the activity is to have you look at the history of your own "dependency" to see if it exists because of original external influence (e.g., attending religious services). • Divide the large group into three small groups. <u>Small Group Discussion</u> • Ask the small groups to complete <i>The Dependency Checklist</i> in five minutes. • Discuss the activities that were listed by participants. • Allow about 15 minutes for this discussion, but try to give all participants an opportunity to speak if they want to. • Return to the large group for the lecture presentation.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
30 minutes	LECTURE/DISCUSSION: PHYSIOLOGICAL AND PSYCHOLOGICAL DEPENDENCE ● Present the following lecturette based on the resource papers for this module highlighting the following points: (NOTE : This is meant to provide participants with a general overview of the phenomenon of dependence. Modules IV, V and VI will illustrate these concepts fully.) ● As stated in the previous lecturette dependence can be viewed as a subset of "compulsive use" in which a high frequency of drug use can be connected to degrees of physiological and/or psychological dependence. ● Dependence as defined previously is a relationship to something in such a way that without it a person would experience discomfort. ● Drug dependence relates to the interplay between the pharmacologic actions of the substance and the psychological status of the individual. It is a state of psychic and/or physical dependence on a particular substance arising following continuous use of that substance. ● Drug dependence is a highly complex phenomenon. - The exact characteristics of the dependence will vary according to the substance involved especially with regard to physiological dependence. - Different drugs act on different people in different ways-both physiologically and psychologically ● Psychological Dependence (psychic dependence; psychic craving; compulsive abuse) - A condition characterized by an emotional or mental drive to continue taking a drug whose effects the user feels are necessary to maintain his sense of optimal well being. - Psychological dependence varies with the individual and with the drug taken, and thus represents a complex interaction of personality factors and specific drug effects. When the desire to continue taking the drug becomes a "psychic craving" or "compulsion," the user may become preoccupied with drug taking and drug procurement. Such behavior is termed <i>drug-seeking behavior</i> or <i>compulsive drug use</i>. - There is a feeling of satisfaction and a psychic drive that require periodic or continuous administration of the drug to produce pleasure or to avoid discomfort. This mental state is the most powerful of all of the factors involved in chronic intoxication with psychotropic drugs, and with certain types of drugs it may be the only factor involved, even in the case of most intense craving and perpetuation of compulsive abuse.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	● A distinction can be made between: - <i>Mere Gratification Dependence:</i> Where either disturbing withdrawal symptoms or treatment after abstinence would be absent or minor. - <i>Emotional Dependence:</i> Where both treatment problems and disturbing withdrawal symptoms of emotional origin upon abstinence could be major. ● Physical Dependence Dependence of the body tissues on the continued presence of a drug (even in the absence of psychological dependence revealed by disturbing or life threatening withdrawal symptoms that develop when use of the drug is discontinued). - Its presence is unknown as long as the drug continues to be taken; its presence is of no known medical or social consequence until the drug is withdrawn or no longer available. - The magnitude of physical dependence and the severity of withdrawal vary directly with the type, amount, frequency, and duration of drug use. ● Physical dependence manifests itself as intense physiological disturbances called the <i>withdrawal</i> or <i>abstinence syndrome</i>; the specific symptoms and signs of a psychic and physical nature which make up the abstinence syndrome are characteristic for each drug type. The degree of physical dependence can be measured only by the severity of the withdrawal symptoms. For drugs like alcohol, the barbiturates, and the narcotic analgesics, the withdrawal syndromes are so unpleasant and threatening that they are important factors motivating the user's drug seeking behavior and continued drug administration to prevent their onset ● The development of psychological dependence is the <i>common denominator</i> in the abusive use of drugs that produce effects on the central nervous system. With certain types of drugs, such as cocaine and marihuana, psychologic dependence may be the only factor involved in their abuse. Thus, psychic dependence can and does develop to some drugs that do not induce physical dependence and that, therefore, do not give rise to an abstinence syndrome after discontinuance of drug use. ● Physical dependence can also be induced by certain drugs (and under some circumstances) without any evidence of psychological dependence. For example, physical dependence can be developed to nalorphine, a drug which antagonizes the actions of morphine. The dependence manifests itself as a withdrawal syndrome when administration is abruptly stopped. However,

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	no psychological dependence develops to nalorphine, and it is not a drug that is abused. - However, physical dependence is a powerful factor in reinforcing the influence of psychic dependence upon continuing drug use or relapse to drug use after attempted withdrawal. • Physical dependence also develops in patients receiving therapeutic doses of morphine or other narcotic agents for a period of several weeks. But the vast majority of these patients evince no desire to continue using the drug after the condition for which it was prescribed has been relieved—they develop no psychological dependence. Hence, while psychological dependence is the feature common to all drug abuse, and may be the only factor involved in the abusive or compulsive use of some drugs, physical dependence alone does not lead to drug abuse. But physical dependence frequently accompanies the psychic dependence induced by drugs such as alcohol, barbiturates, and the opioids. Moreover, physical dependence occurring together with psychologic dependence is a powerful factor in reinforcing the compulsion to continue taking the drug. • The fact that some individuals do not develop psychological dependence to drugs that can induce this phenomenon in other subjects points to the presence of a predisposing factor in the person and not in the drug. • The term "addiction" has been used casually and often erroneously - by the general public to mean any unapproved use of drugs (in much the same way as "narcotics" has been used to refer to all socially or legally proscribed drugs) - by medical scientists to refer to the physiological symptoms associated with continued opiate use - the term has been defined as compulsive, repetitive use in which a person has lost the power of self control with reference to the drug and abuses it to the extent that the person or society is harmed² - "True" addiction has been defined as occurring when all three of the following occur: - psychological dependence - physiological dependence to the point that withdrawal symptoms follow abstinence - tolerance (the need for increasing doses to achieve an effect) • The World Health Organization has discarded the term addiction in favor of "drug dependence."

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
5 minutes	<u>SUMMARY</u> <i>State the following:</i> • To reiterate, psychic dependence can and does develop, especially with stimulant type drugs, without any evidence of psychical dependence and, therefore, without an abstinence syndrome developing after drug withdrawal. Physical dependence, too, can be induced without notable psychic dependence; indeed, physical dependence is an inevitable result of the pharmacological action of some drugs with sufficient amount and time of administration. Psychic dependence, while also related to pharmacological action, is more particularly a manifestation of the individual's reaction to the effects of a specific drug and varies with the individual as well as with the drug. • The concept of physiological and psychological dependence will be discussed again in later modules and examined in the contexts of the etiology of drug abuse, drug use patterns, pharmacological perspective of specific substances, and treatment responses. • <i>Summarize the module and explain the relevance to Module II, III, IV, and VI.</i> END OF MODULE

FOOTNOTES

1. Irwin, Samuel, Ph.D. Drugs of Abuse: An Introduction to Their Action and Potential Hazards.
2. Bennett, James C. and George D. Demos, Drug Abuse and What We Can Do About It. Charles & Thomas, Springfield, 1970.

CLARIFYING EXERCISE: THE FIFTH PERSPECTIVE

Instructions: Check your personal attitudes on the following issues:

	Agree	Ambivalent	Disagree
1. <u>Moral Legal Perspectives</u>			
a. Appropriate use of any substance is defined by the letter of the law	—	—	—
b. Punishment or threat of punishment is the best deterrent to drug use	—	—	—
c. Illicit drug user are uninformed, unwilling, or deviant and must be protected via legal control	—	—	—
2. <u>Disease or Public Health Perspective</u>			
a. Dangerous substances include caffeine, nicotine, alcohol as well as heroin, barbiturates, and other dependence producing or physically harmful drugs	—	—	—
b. Pharmacologic factors are of far greater concern than whether or not a substance is licit or illicit	—	—	—
c. Substance abusers should be treated as a medical problem	—	—	—
3. <u>Psychosocial Perspective</u>			
a. Drug use serves some functional purpose for some individuals	—	—	—
b. Motives for use of any substance vary from individual to individual	—	—	—
c. Appropriate use of any substance depends solely on the personal consequences to a given individual	—	—	—
4. <u>Sociocultural Perspective</u>			
a. Appropriate use of any substance is defined by the society in which it occurs	—	—	—
b. Sociocultural, economic, and political changes are the only viable way to minimize drug abuse.	—	—	—
c. Consequences of drug use are determined largely by whether or not that drug taking behavior is acceptable to a particular culture or society	—	—	—
5. The perspective I tend to operate from personally is:			

6. The perspective my working environment tends to operate from is:

7. Define:

Drug/Substance _____

Drug/Substance Use _____

Drug/Substance Abuse _____

THE "DEPENDENCY" CHECKLIST

INSTRUCTIONS

For each act on the following list that applies to you, put the number of as many reasons as seem appropriate next to the act. Try to remember your initial reasons (and include these) for doing the act, as well as your current reason(s). Even if some acts do not apply you may fill in reasons if you can imagine yourself doing the act.

Feel free to add items to either side of the list.

When you have completed checklist, circle three or four items that have at least six reasons assigned to them. These acts will be the ones you will use for examining their historical development in your life.

<u>Acts</u>	<u>Reason</u>
Smoking	1. Makes me feel good.
Drinking coffee/tea	2. Reduces tension.
Having a drink	3. Puts order in my life.
Watching a particular TV show	4. Gives me something that is uniquely mine.
Playing a musical instrument	5. Perks me up.
Making love	6. Calms me down.
Eating pastry on Sunday morning	7. Provides a change of pace.
Walking the dog	8. Gives me social acceptance.
Going to religious services	9. Gives me a sense of well being.
Playing a sport	10. Makes me anxious if I don't do it.
Sunbathing	11. Makes me feel guilty if I don't do it.
Cooking dinner	12. Makes me feel "square" if I don't do it.
Being a parent	13. Makes me feel in control of my life.
Not being a parent	14. Usually I just have to do it—it is one of life's givens.
Having an after-dinner liqueur	15. My parents did it.
Taking a tranquilizer	16. My friends approve of it.
Taking vitamins	
Buying a house	
Having a savings account	
Paying each bill the day it comes in	
Not being late	
Buying clothes	
Grocery shopping	
Reading a book	
Having a routine	

Acts

Reason

Having a place for everything

Sleeping

Doing nothing

Putting things off

MODULE III: A SOCIAL AND HISTORICAL CONTEXT
FOR UNDERSTANDING SUBSTANCE ABUSE IN THE UNITED STATES

PERSPECTIVE

The purpose of this module is to provide information on and give participants new ways to consider the social and historical development of substance use in this country. This module focuses on historical and social perceptions, misconceptions, substance use patterns and trends, and the societal and legal response to use of illicit drugs.

CONTENT

Overview of Module III	(5 Minutes)
Total Group Discussion: Stereotypes, Perceptions and laws	(15 Minutes)
Lecture: Early American Drug Use	(30 Minutes)
Lecture: Marijuana Use	(20 Minutes)
Lecture: Alcohol Use	(15 Minutes)
Lecture: Barbituate and Tranquilizer Use	(5 Minutes)
Lecture: LSD-25	(15 Minutes)
Lecture: Heroin Use	(15 Minutes)
Lecture: Substance Abuse Laws	(20 Minutes)
Lecture: Transitions: A Drug Sociology of the 1970's	(15 Minutes)
Lecture/Discussion: Themes in Chemical use and Prohibition	(30 Minutes)
Small Group Activity: Historical Script	(60 Minutes)

TOTAL TIME: 4 Hours 10 Minutes

OBJECTIVES

Using the information presented in Module IV as criteria, at the end of this module, and without the aid of notes, participants will be able to:

1. Identify at least three major events that led to the increasing use of substances during the 1960's.
2. Identify one social and one legal response to substance abuse post Civil War.
3. Identify one social and one legal response to the use of alcohol.
4. Identify three trends that have occurred since 1965 in social and legal responses to substance abuse.
5. Identify at least four examples, drawn from history, that represent consequences of the drug laws on certain groups.
6. Identify one principle involved in the introduction of a new drug into a particular culture.
7. Identify at least one new trend in substance use in the 1970's.
8. Identify at least one result of chemical prohibitionist factors

MATERIALS REQUIRED

- "Stereotypes, Perceptions, Laws" written on newsprint
- "A Very Short History of Some American Drugs Familiar to Everybody" by Adam Smith
- "A Short History of Drug Use and Drug Users in The United States" by Elaine Casey
- "An Annotated History of Drug Use" by William White
- "Alcohol Use" by Gayle Hamilton
- "Marihuana: Peril or Panacea" by Sandra Winchester
- "Themes in Chemical Prohibition" by William White
- "A Short Drug Sociology of the Seventies" by O Z White
- "Phencyclidine Use In Illinois" by William White and Randal Webber
- Historical Script Information Sheets
- Markers, tape, and newsprint
- Small and large group meeting space

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
5 minutes	TRAINER'S NOTE: When presenting the following short lecture, keep in mind that the major trends, patterns, themes, and perspectives which can be identified by studying the historical analysis of substance use are more important than dates, names and simple chronology. If you wish you can present the last lecture "Themes of Chemical Use and Prohibition" first and then present the remaining material to illustrate those themes and perspectives discussed. OVERVIEW: MODULE III • Review the objectives of Module III with the entire group. • Explain the sequential flow of the module by highlighting. - Early substance use - Historical use of specific substances: Alcohol, marihuana, LSD, heroin. - Laws pertaining to substance use - Drug sociology of the 1970's - Themes and perspectives in substance use • Introduce the module as follows : In discussing the history of substance use in the United States, it is impossible to avoid the word "stereotype." Substance users stereotype the substance they use as "all good;" prohibitionists type the substance users as "all bad." Laws, by their very nature, necessitate someone's making a determination that use of one thing is O.K. while use of another thing is a criminal activity. Sometimes the distinction is so simple as to translate : "O.K. is something I ingest for recreation; criminal is something you ingest because you are a weak person with no moral fiber." This has often been the case when one segment of society is making the laws, whereas another segment of society is enjoying the substance. To Chinese immigrant laborers working to build the transcontinental railroad, smoking opium was relaxation. To early Californians, Chinese opium dens were heathen hotbeds of sin. The distinction is in the eyes of the beholder, and what he beholds is often filtered through the stereotypes that laws, religions, and societal sanctions have evolved regarding people who are not quite "like us." Since the time of Columbus, key words have been used to load the argument either against or in favor of substance users and the substances they used. Three hundred years ago, the Catholic church prohibited tobacco smoking in Mexican churches. Thirty years

TIME/MATERIALS

TRAINER ACTIVITIES OUTLINE

ago, tobacco companies advertised testimonials from people who would "walk a mile for a Camel." Today, the Surgeon General's warning "cigarette smoking is dangerous to your health" is printed on every package of cigarettes.

In this module, we discuss the history of substance use in the United States, and the histories of prohibitions and stereotypes that have become part of that history. The O.K./not O.K. dichotomy affects our perceptions, misconceptions, laws, and our dealings with people who break those laws.

We are a society that distinguishes between "good drugs" and bad drugs," between "social habits" and criminal habits." Sometimes, those distinctions are based on fact, sometimes on prejudice, lack of information, or misinformation perceived as fact.

Throughout the discussion, you will often hear or use the word "substance" when you expect to hear or use "drug." At this stage in the course, we find it more practical to say "substance" when meaning "anything that alters the natural, unaffected physical and emotional state of the human body." Perhaps that working definition is simplistic. However, it does help eliminate, temporarily the semantic problem of determining just when and where caffeine, nicotine, codeine, cola beverages, and over-the-counter medications start being "drugs." When a single substance can be perceived as O.K. if prescribed by a physician, and not O.K. when ingested for recreation, a substantial perception problem surely exists.

A short exercise will illustrate this point.

- Write the following on newsprint :

STEREOTYPES - PERCEPTIONS - LAWS

1. How can stereotypes keep us from perceiving the true nature of a problem, and from dealing with it as it actually exists?
2. Do laws affect perceptions, or do perceptions affect changes in laws?
3. When society perceives something as "wrong," how does it relay that disapproval to its legislators, so that legal measures can be taken to punish: the substance, the user, the manufacturer, the distributor?

- Ask the group to respond aloud to the questions listed on newsprint. If members of the group hesitate, use some of the following activities as examples for discussion :

- gambling
- smoking
- drinking alcohol

15 minutes

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
30 minutes	- participation in war - proponents and protesters - public assistance to religions - support for primary and secondary schools - price controls on farm products; on energy resources - the 55 mph speed limit - the illegal conduct of an elected public official • List the responses of the group to each question on newspaper. <u>LECTURE: EARLY DRUG USE IN AMERICA</u> • State the following: - American opinion has always included some opposition to the nonmedical use of any drug, including alcohol and tobacco. From colonial times through the Civil War, abstentionist outcries against alcohol and tobacco sporadically provoked prohibitory legislation. . . . One 19th century observer attributed <i>delirium tremens</i>, perverted sexuality, impotency, insanity, and cancer to the smoking and chewing of tobacco. Despite such warnings, alcohol and tobacco use took deep root in American society. . . . The strain in our culture opposed to all nonmedical drug use persisted (National Commission on Marihuana and Drug Abuse, 1972). - Until the late 1800's, the opium dens of the west coast were well known, and opium could be purchased easily and was free from any State or Federal controls. - Until the Federal Controlled Substances Act was passed by Congress in 1970, antisubstance legislation did not keep pace with (or even categorize) the apparently endless variety of natural substances and preparations, multisubstance compounds, synthetic derivatives, and "improvements" on the natural which were adopted by various subcultures, as people continued in the search for a new high. - Physician prescribed medications, once used for legitimate treatment, came into use as alternatives to illicit substances. Elementary school children got high with inhalants. Students, housewives, and truck drivers found prescription and black market sedatives and amphetamines. Even LSD was no longer just "acid." When LSD-25 was outlawed, it was replaced by DMT, psilocybin, nutmeg, morning glory seeds, peyote, mescaline, PCP, STP, and other hallucinogens not yet prohibited by State and Federal law. - In short, the variety of 20th century substances with potential for abuse confounded the abolitionist.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	prohibitionist efforts of the 1960's and early 1970's. And the crazy quilt patterns of regulatory legislation generated reflected that confusion. - The resourcefulness of those determined to get high was remarkable. When one hallucinogen was outlawed, another took its place. • State the following : I am going to present an overview of the history of drug use in this country starting with the explorers. - The 15th and 16th century explorers were the first people in the Americas to have a multisubstance culture. - The European explorers from Columbus on found other (in addition to alcohol) mind affecting drugs, and brought them home. In a remarkably short space of time, western Europe was converted from an alcohol only culture to a multidrug culture (Brecher, 1972). - Spanish settlers in Mexico found Incas using peyote in religious ceremonies. Some Indian tribes in both North and South America still continue to use peyote and mescaline. - <i>Cannabis sativa</i> was introduced into Chile by Spanish conquerors in 1545. - Cannabis (hemp) and tobacco were major export crops for Colonial farmers. - The Jamestown settlers brought cannabis to Virginia in 1611 and cultivated it for its fiber. Marihuana was introduced into New England in 1629. From then until after the Civil War, the marihuana plant was a major crop in North America, and played an important role in both colonial and national economic policy. - George Washington was growing hemp in 1765 at Mount Vernon, presumably for its fiber, though it has been argued that Washington was also concerned with increasing the potency of his marihuana plants as medicines and intoxicants (Brecher, 1972). - 1775: Hemp plantations were established in Kentucky, Mississippi, Georgia, California, South Carolina, and Nebraska, continuing until the mid-1800's. - Alcohol, tobacco, and caffeine were the substances used by most Americans until the Civil War era. - Opium was brought to the United States in the early 1800's by Chinese immigrant laborers working on the transcontinental railroad. Opium smoking was legal and there were no legal restrictions on opium purchasing.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	- Opium use was fashionable among European writers. In 1821, Thomas De Quincey's <i>Confessions of an Opium Eater</i> was published. The book was popular, and could well have led many people to experiment with opium. - Use of opium in the U.S. was primarily medicinal in the first half of the 19th century. - Patent medicines sold in the United States were a primary source of pure opium. The medicines claimed to cure "female problems," "nerves," "sleeplessness," and other self diagnosed ailments. They were subject to no Federal or State controls, were available over the counter and helped contribute to a large population of middle class, white, female addicts. - Morphine was separated from opium in the early 1800's and soon replaced opium in patent medicines. - Physicians believed the new opium derivative to be nonaddictive, and hoped that it could actually cure opium addiction in patients. Doctors prescribed the new opiate readily. Prevalent medical opinion held that the addiction process occurred in the individual's stomach, and that ingestion of an opiate was responsible for the addiction. The hypodermic needle and syringe were introduced in 1850 - greeted as a boon by physicians who hoped to use morphine injections to kill pain, but believed that the injection process itself would eliminate the addiction problem. - Morphine was used commonly as a pain killer during the Civil War. So large a number of soldiers became addicted as a result of the opiate given them for battle injuries that the postwar morphine addiction prevalent among veterans came to be known as "Soldier's Disease." - Late in the 1800's, morphine was prescribed commonly as a substitute for "alcohol addiction," and the practice continued until late in the 1930's. <u>Early Cocaine Use</u> - 1844: Cocaine alkaloid was first isolated, in pure form, from coca leaves. - 1883: A German army physician gave pure cocaine to Bavarian soldiers during field maneuvers. Positive results were reported, including extended ability to endure fatigue. - 1884: Sigmund Freud experimented on himself with 50 mg. of cocaine. Freud prescribed cocaine to relieve the pain of a friend who was then addicted to morphine, and sent some cocaine to his own fiancee, to "make her more lively." For the next three years, Freud used cocaine occasionally to relieve his own depression.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	- <u>Late 1880's</u>: Dr. William Halsted, one of the founders of the Johns Hopkins School of Medicine, discovered that cocaine injected near a nerve produces a local anesthesia. - <u>1885</u>: "Coca Cola" syrup contained extract of coca leaves (cocaine) and caffeine. Cocaine was part of the formula until the Pure Food and Drug Law was enacted in 1906. <u>Early Marihuana and Hashish Use</u> - From 1850 until 1942, the <i>United States Pharmacopeia</i> listed marihuana, under the name "Extractum Cannabis" as a legitimate medicine. - In 1851, the <i>United States Dispensary</i> reported the use of cannabis extract in treating "Neuralgia, gout, rheumatism, tetanus, hydrophobia, epidemic cholera, convulsions, chorea, and hemorrhage." - <u>1876</u>: The <i>Illustrated Police News</i> featured a drawing of a "hasheesh hell" on Fifth Avenue in New York City. - <u>Late 1800's</u>: Hashish candy was being sold in candy stores in Baltimore, Maryland. <u>Patent Medicine Use</u> - The opiates (opium and morphine) were found in patent medicines until passage of the Pure Food and Drug Act in 1906. - Largely as a result of the patent medicines and physicians who prescribed opiate medications for female disorders, women became the largest class of opiate dependent persons during the late 19th century. - In addition to opium and morphine in medicines the extent to which alcohol drinking by women was frowned upon may also have contributed to the excess of women among opiate users. Husbands drank alcohol in the saloon; wives took opium at home (Brecher, 1972). <u>Heroin Use</u> - Heroin, an opium derivative, was first produced commercially by the Bayer Company in Germany in 1898. - Heroin was advertised as a potent pain killer, with none of the addicting properties of morphine and opium. - Physicians often prescribed heroin to cure morphine and opium addiction. - Importing opium for the manufacture of heroin was legal until 1925.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
20 minutes	<u>Tobacco Prohibition Movement</u> - Until the first decade of the 20th century, use of tobacco was usually confined to smoking in pipes and cigars, chewing, and inhaling snuff. Cigarettes as we know them today began to appear in the late 19th century. - The explosive increase in cigarette smoking after 1910 can . . . be attributed in part to the public-health campaigns of that era against the <i>chewing</i> of tobacco and its inevitable accompaniment, the cuspidor. The sputum of tobacco chewers, according to repeated public health warnings, spreads tuberculosis and perhaps other diseases. Most of those who gave up tobacco chewing no doubt turned instead to cigarette smoking (Brecher, 1972). - Anticigarette leagues flourished. By 1921, the year after alcohol prohibition, 14 States had laws prohibiting cigarettes, and 92 anticigarette bills were under consideration in 28 more State legislatures. But people continued to smoke, and the last statewide cigarette prohibition law was repealed in 1927. Only laws concerned with cigarette sale to minors were retained. - Most States also meted out penalties sometimes so severe as to make the whole tobacco prohibition approach a source of ridicule. <u>LECTURE: MARIHUANA USE</u> • State the following: - Cannabis and its products have a long history of medicinal and social use dating back to second millenium B.C. in China and early 17th century in the U.S. - It has been the subject of political and public dispute on moral, legal, medical, and ethical grounds throughout its use in the U.S. particularly since the 1960's. - Recreational use of marihuana became popular during and immediately following the years of alcohol prohibition. - (In New York City) marihuana 'tea pads' were established about 1920. They resembled opium dens or speak-easies except that prices were very low. . . . Most of the marihuana, it was said, was harvested from supplies growing wild in nearby States: These tea pads were tolerated by the city, much as alcohol speakeasies were

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	tolerated. By the 1930's there were said to be 500 of them in New York City alone (Brecher, 1972). - In 1926, two New Orleans newspapers, the <i>Item</i> and <i>Morning Tribune</i>, published a series of "exposes" of the marihuana menace. - In 1927, Louisiana passed a law providing for a \$500 fine or six months' imprisonment for sale or possession of marihuana. - However, marihuana prohibitionists continued their campaign. In 1929, Colorado passed antimarihuana legislation aimed at curtailing the habits of Mexican laborers. - During the 1930's marihuana was heralded as causing immorality, corruption, insanity, and heinous and violent criminal acts. - On January 1, 1932, the Treasury Department's newly formed Federal Bureau of Narcotics took over enforcement of Federal antiopiate and anticocaine laws. - By 1937, the District of Columbia and 46 States had adopted some form of legislation against marihuana. In most of those states, "marihuana was subject to the same rigorous penalties applicable to morphine, heroin, and cocaine, and was often erroneously designated a narcotic" (Brecher, 1972). - In 1937, Federal Treasury Department officials submitted a proposal to Congress that became the 1937 Marihuana Tax Act. The Act did not actually ban marihuana but, like the Harrison Narcotic Act of 1914, did recognize the potential medical uses of the substance while imposing a tax on those involved in distribution. - In 1937, Congress passed a schedule of increased penalties for second, third, and subsequent offenses against existing drug laws. Penalties to previous offenders for selling, importing, or exporting narcotics then defined as the opiates, cocaine, and cannabis were raised to a maximum of 20 years in jail or \$10,000 in fines. - In terms of a summary related to this country's early legal response to marihuana it appears that: Marihuana had been included with the opiates (opium, morphine, heroin) and cocaine in early antidrug laws. Since 1937, restrictive legislation on marihuana has increased in quantity severity. Most state marihuana laws specified that marihuana penalties should be the same as heroin penalties. . . . (Brecher, 1972).

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	- The 1951 Boggs Act classified marihuana as a narcotic. Control of its use has been legislated accordingly since. - In 1956, Federal mandatory minimum penalties were raised: - Minimum of two years in jail for first possession offense - Minimum five years in jail, with no parole, probation, or suspended sentence allowed - for second offense possession - Minimum five years in jail for first-offense sale - Minimum ten years in jail for second selling offense - Identical penalties for marihuana and opium/morphine/heroin offenses - Drug education efforts in the 1950's and 1960's consisted of sensational attempts to inform the public of deleterious effects. - In the 1960's, marihuana came to be associated with unconventional, antiauthoritarian, counter cultural, and hedonistic lifestyles. - It was widely feared that heavy cannabis use produced "amotivational syndrome" - a loss of will and diminished capacity to think straight. - Another common fear was the "stepping stone hypothesis" - use of marihuana leads to the use of other drugs and inevitably to heroin. - A NIDA study in 1975 showed that, although marihuana is usually the first illicit drug used by heroin or cocaine users, alcohol is the first licit drug used. - Marihuana use has been associated with crime dating back to the 1930's. - In 1972 the National Commission on Marihuana and Drug Abuse concluded that there was no empirical evidence to support the thesis that use of marihuana leads to or precipitates criminal behavior - Nonetheless, as recently as 1970, these State penalties were in force: - In Georgia, sale of marihuana to a minor was punishable by life imprisonment, even if it was a first offense. . .A second such offense was punishable by death.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	In Illinois, the penalty for a first sale offense was not less than ten years and as much as life. A mandatory life sentence was in effect for a second sale offense. In Louisiana, anyone over 21 years of age possessing marihuana was subject to a mandatory minimum sentence of five years at hard labor for a first offense, In Massachusetts, it was a felony punishable by not more than five years in prison to be in a place where marihuana was kept or deposited, or to be in the company of anyone known to be in illegal possession of marihuana. In Missouri, the judge could hand down a life sentence for a second possession offense or a first sale offense... If the buyer were a minor, a death sentence was possible for a first sale offense... In Utah, a life sentence was possible for a first marihuana sale offense or for a second possession-with-intent-to-sell offense. - In its 1972 report <i>Marihuana: A Signal of Misunderstanding</i>, the National Commission on Marihuana and Drug Abuse summarized contemporary conflicting opinions: Marihuana's advocates contend that it is no more or less harmful than alcohol and tobacco and should therefore be treated in similar fashion. The drug's adversaries contend that it is a stepping stone to the narcotics and should remain prohibited. Interestingly, while marihuana is perceived as less harmful than before, alcohol and tobacco are regarded as more harmful than before. Despite this shift in attitudes, however, the use of alcohol and tobacco is not considered a major social problem by many Americans, while marihuana use is still so perceived. - By August, 1977, prevalent opinion had altered enough so that President Carter could propose Congress's passing legislation to "decriminalize" possession. - Despite information from research in the past decade, marihuana is an emotionally laden subject. A 1977 Gallup Poll estimates that 59 percent of the public believes marihuana use leads to the use of harder drugs. Extensive marihuana research has found a progression to other drugs, brain damage, chromosome abnormalities, psychosis, therapeutic potential and other areas with sometimes conflicting conclusions drawn by different researchers.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	- An issue of <u>Time Magazine</u> has summed up the issue as follows: Polls show that most Americans still believe that pot is addictive, harms users physically and usually leads them to hard drugs. None of this has been proved in more than ten years of scientific studies. Early research raised fears that even occasional puffing on a joint might lead to personality changes, birth defects, brain shrinkage, sterility in men, lowered resistance to disease and heart damage. Other studies have disputed these findings. Moreover, several studies have indicated that the major active ingredient in pot; tetrahydrocannabinol (THC), might even have medical uses. Although a final verdict must await further studies, most researchers now believe that aside from rare bad trips by novice smokers, marihuana is hazardous only for chronic heavy users--people who get stoned nearly every day. They risk becoming psychologically dependent on pot and damaging their lungs with the tar in marihuana smoke. But light or occasional use of marihuana--once or twice a week--usually produces only a pleasant high, no more dangerous than a mild intoxication from alcohol. Of course, pot like alcohol affects users' judgment and reflexes, so it can lead to accidents if people drive or operate machinery while high. (<u>Time</u>, August 15, 1976).
10 minutes	● Ask group members if they have any questions about the material. If so, respond accordingly.
15 minutes	<u>LECTURE: ALCOHOL USE</u> ● State the following: - Nearly every civilization on earth has made and consumed alcoholic beverages. - Different patterns of use were developed by different cultures. - In the U.S. pattern of consumption increased sharply after the turn of the century and remained high until prohibition. - The Eighteenth or "Prohibition" Amendment passed both houses of Congress in December 1917, and was ratified by three-fourths of the 48 state legislatures 13 months later. From 1920 until 1933, the manufacture, sale, and consumption of alcohol was prohibited.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	in the United States. - However, as with tobacco, the opiates, and cocaine, legislation failed to create a general climate of abstention . Alcohol remained available during Prohibition. Instead of consuming alcoholic beverages manufactured under the safeguards of State and Federal standards...people now drank 'rotgut', some of it adulterated, some of it contaminated...the disreputable saloon was replaced by the even less savory speakeasy. There was a shift from relatively mild light wines and beers to hard liquors--less bulky and therefore less hazardous to manufacture, transport, and sell on the black market. Organized crime syndicates took control of alcohol distribution, establishing power bases that (it is alleged) still survive. Marihuana, a drug previously little used in the United States, was first popularized during the period of alcohol Prohibition... and ether was also imbibed (Brecher, 1972). - Despite vigorous Federal efforts to enforce the 18th Amendment, the alcohol prohibition concept proved unenforceable. - The 21st Amendment repealing prohibition passed Congress in February 1933. It was ratified by the required number of States in less than ten months. - The 21st Amendment returned to individual states the power to retain statewide alcohol prohibition. But the states had learned it was impossible to keep citizens from drinking. - By World War II per capita sales had returned to pre-1900 levels and continued to rise. - Research has established that alcohol is the most abused drug in the U.S - Cross cultural studies have indicated that the most significant fact in responsible drinking patterns is consistency of attitudes toward drinking. - o A person with positive attitudes toward use and negative attitudes toward drunkenness is less likely to abuse alcohol. - In the U.S. these attitudes have not been consistent: 1/3 of population are abstainers with Prohibitionist attitudes 1/10 of population are heavy drinkers

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
5 Minutes	36 percent of those who drink can be classified as problem drinkers. - The U.S. drinking population has failed to recognize alcohol as a drug, which poses a greater threat than other drugs which have consumed attention. - The persistent attitude that alcoholism is a sign of moral weakness has hampered early identification and treatment. Alcoholics are treated only after the condition has become physically and socially debilitating. This attitude has also encouraged exclusion of alcoholics from health and social service benefits. - Public concern for this problem was not aroused until the 1960's. Alcohol abuse did not become a national priority until 1970's when the National Institute on Alcohol Abuse and Alcoholism was established by the Alcoholism Prevention, Treatment, and Rehabilitation Act. Funding levels remain low. The 1971 Uniform Alcoholism and Intoxication Treatment Act was another milestone in growing public concern. - Changing public awareness and attitudes have created a climate in which the problem drinker can seek help. <u>LECTURE: BARBITURATE AND TRANQUILIZER USE</u> • State the following: - During the 19th century, opiates had been used frequently for their sedative benefits. These were found to be addictive, and physicians often prescribed bromide salts as an alternative. Bromides never gained great popularity due to the risk of chronic bromide poisoning. Until the first years of the 20th century, physicians continued to prescribe alcohol as the most common sedative. - 1903: Barbital, a derivative of barbituric acid, came into medical use as a tranquilizer and sedative. Trade name for the product was Veronal^R. Nine years later, Luminal^R (phenobarbital) came on the market. Demand for the new sedatives increased rapidly. By the end of the 1930's an estimated billion grains (of barbiturates) were being taken each year in the United States alone. (Brecher, 1972). - 1942: <i>Hygeia</i> (Today's Health; American Medical Association) publishes first warning against use of barbiturates except by those under a

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
5 minutes	physician's care. Agents of the United States Food and Drug Administration worked to cut down available supplies of non-prescription barbiturates. States passed laws and a barbiturate black market developed. - One medical result of the barbiturate panic was a trend toward prescribing non barbiturate sedatives and sleeping pills (i.e., Doriden^R, Placidyl^R, Noludar^R) in increasing quantities. - The "minor tranquilizers" came into popular medical use. The first of these was meprobamate (marketed as Miltown^R), followed by chlordiazepoxide (Librium^R), and diazepam (Valium^R). The "minor tranquilizers," particularly, have since gained a reputation as substances of common use. <u>LECTURE: AMPHETAMINE USE</u> • State the following: - Amphetamines were first synthesized in 1887, but little use for them was found until 1927, when laboratory experiments discovered their usefulness in raising blood pressure and stimulating the central nervous system. - During the later part of the 1930's, amphetamines were used to treat both narcolepsy and hyperactive children. - During World War II, army physicians issued amphetamines to American, British, German, and Japanese armed forces for alleviation of battle fatigue. - After the war, physicians routinely prescribed amphetamines for depression. - During the Korean War era, the earliest intravenous use of amphetamines by United States serviceman was reported. Soldiers stationed in Korea and Japan during the early 1950's mixed heroin with amphetamine and injected the combination. A number of returning servicemen brought the custom back to the United States. - During the late 1950's, some San Francisco area physicians prescribed amphetamine injections as treatment for heroin addiction often using Methérine. - As recently as 1960, it was reportedly common practice in the San Francisco area for injectable amphetamines to be sold without prescription, or via telephoned "prescriptions" by people impersonating physicians. The resultant scandals during 1962 and 1963 caused most injectable amphetamines to be taken off the market.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
15 Minutes	- With injectable amphetamines available legally only to hospitals, black market supplies appeared. Illicit laboratories specializing in amphetamines were reported in the San Francisco area as early as 1962. <u>LECTURE: LSD-25</u> ● State the following: - In 1938, Drs. Albert Hofmann and W. A. Stoll of Sandoz Laboratories in Basel, Switzerland, discovered the ergot derivative <i>D-lysergic acid diethylamide</i>. - In 1943, Dr. Hofmann took the first acid trip. This "trip" showed that LSD was not toxic or addictive but that an extremely small dose had profound results. The United States Army began to stockpile LSD. Therapists around the world began to use it with patients. It allowed, they said, repressed memories to come forth, and the material that came up could be better understood because it took the form of visual symbols....Originally, LSD was called a hallucinogen, that is, an agent that causes hallucination. But the LSD ingester remains aware that what he is experiencing is a drug induced phenomenon. So LSD was not a hallucinogen. Dr. Humphrey Osmond, one of the first psychiatrists to use the drug, called it psychedelic, mind manifesting, or mind expanding.... and he hoped LSD would be an aid to curing schizophrenia in his Saskatchewan hospital. (Smith, 1975). - For the next 20 years, LSD-25 was tested as a cure or treatment for medical problems. - The Maryland Psychiatric Research Center, among other facilities, had success in using the drug for treating chronic alcoholics. - The Cook County Hospital in Chicago and Sinai Hospital in Baltimore reported good results when using LSD to treat pain in terminal cancer patients. - In Poland, Dr. Am. Rostafinski used the drug to treat a small group of epileptic patients. - Before 1962, almost all the LSD-25 and psilocybin available in the United States and Canada could be purchased, legally, by physicians, psychiatrists, psychologists, and other mental health professionals who could certify legitimate use for them. - During 1962 and the years immediately thereafter, the Food and Drug Administration issued more stringent regulations pertaining to investigating new.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	drugs (IND), including LSD-25. In consequence, many States passed legislation outlawing LSD and a new Federal law further restricting use of investigational drugs, including LSD, went into effect. - Underground laboratories began LSD production. - The new Federal regulations only served to give the drug wider publicity than it would otherwise have gotten. The Sixties took over, the psychedelics became a subcult. . . LSD became a terror symbol, which made it attractive to children who. . . knew that the Establishment and the law and their parents were all lying. . . (Smith, 1975). - During the summer of 1960, Dr. Timothy Leary tried the Mexican psilocybin mushroom. He and Dr. Richard Alpert began experimental work with LSD. - In 1962, the FDA, Massachusetts law enforcement officials, and the Harvard Board of Trustees began investigating Leary who took advantage of this notoriety to campaign nationally for LSD. - 1965: Federal drug abuse control regulations were passed. Based on its power to regulate interstate commerce, Congress now regulated the sale and use of depressant, stimulant, and hallucinogenic drugs. - The Drug Abuse Control Amendments required the registration of every person who engaged in the manufacture, preparation, compounding, wholesaling, jobbing, and distribution of depressants or stimulants. Penalties were provided for anyone who sold, gave away, or otherwise distributed any substance in violation of the law, but no stipulation was made regarding someone who possessed depressant or stimulant drugs for use by members of his/her own household. - 1968: Amendments to the legislation granted more strict penalties for anyone convicted of selling or distribution. For the first time, the 1968 amendments also provided for penalties for anyone found guilty of illegally possessing a depressant or stimulant drug. - 1966: Clifornia passed the Grunsky bill, which prohibited possession, sale, manufacture, or importation of LSD and DMT into the state. One notable result of the California legislation was to raise the average price of an acid trip from \$3 to \$10. Psychedelics were no longer experimental substances used by researchers to peel back the layers of the mind; they were a social issue and a divisive one at that. (Smith, 1975). The Haight-Ashbury heads held the first big 'be-in', the Love Festival on October 7, on the occasion of the California law against LSD going into effect. (Wolfe, 1968).

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
15 minutes	- Soon, due to Federal restrictions and penalties, chemically pure LSD-25 was no longer available. - The flower children were uncritical consumers. They believed in trust, and they often trusted people they shouldn't have. - "Psilocybin" was sometimes the dried magic mushroom, sometimes its synthetic equivalent, sometimes canned grocery store mushrooms soaked in phencyclidine (PCP), an animal tranquilizer producing a chemical reaction close to alcohol intoxication. - Amphetamines were not pure. Almost every substance was cut with strychnine or arsenic. Even the cannabis was often treated with something to make it "better" than nature intended. - Before long the summer of love was corrupted. Police started raiding the children's homes and carting them off to jail on charges ranging from illegal possession of drugs to cohabitation. - Chemicals bought on the street were increasingly unreliable. - "Speed freaks" and "junkies" moved in, bringing their amphetamines and heroin with them. The flower people moved to the country: The heroin and amphetamine users stayed. - As early as 1965, the underground press had tried to warn users of cannabis and LSD against amphetamines. - Meanwhile, the national media continue their campaign against LSD and marihuana. As in the past, all that governmental threats and prohibitionist scare tactics accomplished was to advertise the availability of chemicals. - Government efforts to curb increasing black market amphetamine traffic continued. Underground speed labs were busted. Legal stimulants were controlled closely. Prices went up. Black market merchants began importing increased amounts of cocaine to meet the stimulant demand. <u>LECTURE: HEROIN USE</u> ● State the following: - The descendents of Haight-Ashbury turned increasingly to heroin. Use was no longer centered mainly in the non white ghettos. - In the Spring, 1971 <i>Journal of Psychedelic Drugs</i>, three medical staff members of the Haight-Ashbury Free Medical Clinic traced changing heroin use: Within the last two years [1969 to 1971] there has evolved a new style of heroin addict consisting largely of alienated white youth suffering from disillusionment, disaffiliation, frustration, and despair.

TIME/MATERIALS	TRAINER / ACTIVITIES OUTLINE
	1970 is becoming recognized as the 'year of the middle class junkie', a reflection of the changing socioeconomic background of today's heroin extraction. They have begun using heroin (the perfect tranquilizer) only within the last few years and are now beginning to seek medical help in rapidly increasing numbers. The 'middle class junkie' is . . . composed of two rather distinct types: the 'New Junkie' (who began using heroin after January, 1967) and the 'Transition Junkie' (who began using heroin between January, 1964 and January, 1967). The TJ is characterized by a similar family and social background to the 'New Junkie' and differs mainly in the effects of the social atmosphere of the drug subculture that existed when s/he came onto the scene. S/he passed through a period of optimism and hope, and reflects this in the drugs s/he used heavily prior to heroin (the psychedelics and amphetamines). S/he is a self medicator and a drug experimenter; s/he has 'tried all drugs.' The newer addict entered the drug subculture at a time of beginning frustration and despair, and therefore, engaged in less experimentation before 'settling' on heroin. He is more aware of some of the dangers of the 'street' drugs (having seen the effects on the Transition Junkie's contemporaries), and less of a self treater than is Transition Junkie counterpart. These two groups together (NJ and TH) make up the 'middle class junkies' and are distinguished from the older ghetto-bred addicts. . . by many factors other than background, family status, percentage of females, and race. They are also separated by therapeutic response, with the older addict being a more 'faithful' patient and less likely. . . to get 'clean' than his newer counterparts. (Shepard et al., 1972). - The Haight-Ashbury Free Medical Clinic study on which the above report was based uses January, 1964 as the approximate time when heroin use began to spread from non white ghetto areas into segments of America's white, middle class community. - Vietnam brought many middle class youngsters who would otherwise never have known about the drug into contact with heroin. - Like Korean War soldiers, many American soldiers in Vietnam had some heroin habit. Some were users before going to Vietnam; others became users after arriving.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	Shortly after the United States began military support to South Vietnam, high incidence of drug abuse, particularly marihuana and dangerous drugs such as the amphetamines and barbiturates occurred among the military stationed there. The Department of Defense appointed several Task Forces to inquire into . . . the problem . . . Early reports . . . concluded that there was virtually no drug addiction in the military . . . One survey by two army physicians conducted on GI's returning from Vietnam showed that more than 16 percent admitted using heroin during their final thirty days in Vietnam . During early 1971, as a result of an amnesty program, the Pentagon reported that nearly 16,000 servicemen voluntarily identified themselves as heroin users and sought treatment . . . There is no estimate of how many servicemen qualified for treatment but did not identify themselves as heroin users. . . . Whatever estimated figure one chooses to accept, there were anywhere from 25,000 to 50,000 American troops in Vietnam who were heroin users by mid-1971, and this estimate does not include addicted servicemen who had previously served in Vietnam and returned to civilian life. (Levine, 1974). - In 1971, the Veterans Administration set up 32 clinics treating 6,000 heroin addicts. - June, 1971, President Richard Nixon appointed Dr. Jerome H. Jaffe to head the new White House Special Action Office of Drug Abuse Prevention, which was to have overall responsibility for major Federal drug abuse prevention, education, treatment, rehabilitation, training, and research programs. LECTURE: SUBSTANCE ABUSE LAWS ● State the following: - In terms of a summary related to this country's early legal response to drugs it appears that the early state laws generally restricted or prohibited possession of substances without considering whether those substances could have significant medical use. - The laws were concerned with the way in which drugs could be sold. They did not set standards for examining their legitimate use by physicians. Doctors continued to prescribe opiates (morphine and opium) and cocaine for varied ailments,

20 minutes

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	- 1872: California passed the first antiofium law. "The administration of laudunum, an opium preparation, or any other narcotic to any person with the intent thereby to facilitate the commission of a felony" now was a felony. - 1874: Connecticut passed the first state law declaring a "narcotic addict" incompetent to attend his personal affairs, and requiring that addicts be committed to state mental asylums until they were cured of their "addictions". - 1877: Nevada passed the first state law to prohibit opium smoking. Opium was to be dispensed only with a physician's prescription. - 1881: California passed a law outlawing opium dens. Opium smoking in private residences was still legal. - 1887: Territory of Oregon passed the first comprehensive antisubstance law: No person could sell, give away, or possess any opium, smoking opium, morphine, cocaine, or chloral hydrate except on the prescription of a physician. - 1905: Connecticut passed a law requiring a physician's prescription for sale of cocaine. In 1913, the law was amended to include opium, morphine, and heroin. - 1906: The Pure Food and Drug Act was passed. The Act required manufacturers to label all products containing opium, morphine, and heroin. Passage of the Act resulted in removal of cocaine from Coca-Cola. This was the first Federal legislation to exert any form of control on the use or distribution of drugs. - The Harrison Narcotic Act (1914) was not a prohibition, but a taxing vehicle allowing the marketing of opium, morphine, heroin, and other drugs on the prescription of a physician who had paid for a license. The preparations could be manufactured only by licensed firms and dispensed by pharmacists who, again, had paid for their licenses. The right of a physician to prescribe was spelled out in apparently unambiguous terms: Nothing contained in this section shall apply . . . to the dispensing or distribution of any of the aforesaid drugs to a patient by a physician, dentist, or veterinary surgeon registered under this Act in the course of his professional practice only. . . . After passage of the law, this clause ('in the course of his professional practice only') was interpreted by law enforcement officers to mean that a doctor could not prescribe opiates to an addict to maintain his addiction.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	Since addiction was not a disease, the argument went, an addict was not a patient, and opiates dispensed to or prescribed for him by a physician were therefore not being supplied 'in the course of his professional practice. Thus a law apparently intended to ensure the orderly marketing of narcotics was converted into a law prohibiting the supplying of narcotics to addicts, even on a physician's prescription. (Brecher, 1972). - Opium and cocaine could no longer be obtained legally, in quantity, by the user on the street. As licit sources became more controlled, new illicit channels opened to supply users. When the Supreme Court ruled in the early 1920's prescriptions for addiction were not legitimately medical practice, the interpretation meant simply that addiction thereby became a federal crime. (Clark, 1976). - In 1918, a study by a Congressional committee found: - Opium and other narcotic drugs including cocaine) were being used by about a million people. - The "underground" traffic in narcotic drugs was about equal to the legitimate medical traffic. - The wrongful use of narcotic drugs had increased since passage of the Harrison Act. - As a result of those findings, Congress responded with measures to strengthen the Harrison Act. In 1924, a law was enacted prohibiting importation of heroin for any purpose, including medical use. - The 1924 ban on heroin did not deter the conversion of morphine addicts to heroin. On the contrary, heroin ousted morphine almost completely from the black market after the law was passed. (Brecher, 1972). - 1942: Federal Opium Poppy Control Act required a license of anyone growing opium poppies within the United States. 1944: Federal synthetic opiates law including isonipecaine (Demerol®) under previous definitions and restrictions of narcotic drugs. 1946: Legislation controlling other synthetic drugs went into effect. It defined a new comprehensive class of drugs, "opiates," which has since been expanded to deal with a number of synthetic substances, including methadone, under narcotic control laws.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	- <u>1956</u>: Federal Narcotic Control Act set minimum mandatory penalties for violations of laws controlling marihuana and the opiates (see above). The Act also provided for surrender of all existing heroin to the Federal Government (actual import of opium for heroin manufacturing had been banned in 1924), irrespective of whether that heroin had been manufactured prior to 1924. - <u>1966</u>: The Narcotic Addiction Rehabilitation Act provided treatment and rehabilitation for both convicted and volunteer heroin addicts. The Act specified conditions for short term, inpatient care in medical facilities, and for long term, continued outpatient care in the community. The United States Surgeon General was mandated to assist states and municipalities in developing treatment programs and facilities for addicts. - As defined in the law, "treatment" was to include "confinement and treatment in an institution, and supervised aftercare in the community . . . designed to protect the public and benefit the addict by correcting his antisocial tendencies and ending his dependence on addictive drugs and his susceptibility to addiction." - In 1968 the Department of Justice's Bureau of Narcotics and Dangerous Drugs was established and charged with enforcing federal laws with the goal of suppressing illegal drug traffic. - <u>1970</u>: The Controlled Substances Act provided a comprehensive, integrated set of regulations regarding substance("drug") use and control. - The major areas covered by the Act were: Five separate substance schedules are created, according to the supposed potential for abuse and the currently accepted medical uses for the drugs in each substance group. The five groups were: - Schedule I: heroin; marihuana; LSD-THC; hallucinogens. - Schedule II: opium; morphine; Dilaudid; Demerol; Methadone; cocaine; liquid amphetamine. - Schedule III: amphetamines; Nalline; short acting barbiturates; and Doriden, Noludar, Ritalin, paregoric. - Schedule IV: minor tranquilizers; long acting barbiturates. - Schedule V: substances that can be sold over the counter, without prescriptions;

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
15 Minutes	primarily, cough syrups, such as terpin hydrate with codeine. Different penalty scales were provided for law violations within each substance schedule. The Act differentiated between "addict," "user," and "trafficker" when setting penalties. Various legal jurisdictions for controlling drugs as they pass from manufacturer to distributor to consumer were specified. Provision was made for including any new substances or drugs under the five schedules of the existing Act. The Act called for increased research in the field of drug abuse prevention, and for continued research on treatment and rehabilitation methods.
	<u>LECTURE: TRANSITIONS: A DRUG SOCIOLOGY OF THE SEVENTIES</u> ● State the following: - Drug use in recent years has meant neither the social stigmas nor the revolutionary political convictions that accompanied the drug culture in the 1960's. - One of the most significant patterns to emerge during the 1970's is that there are no set stereotypes of drug users and drug use patterns anymore. - At one time in the 20th century, use of opiates evoked a collection of alien, ghetto based imagery. Use of marihuana, LSD, cocaine, mescaline during the 1960's often implied the user's belief in social revolution and his search for "cosmic knowledge". Former users became professionals, parents, members of the community and to some extent, still used some of the drugs they had during the decade before. - Social scientists are still trying to learn the meaning of the drug use phenomenon in the 1960's. - Several developments can be viewed as significant in terms of use/response patterns. - The "polydrug" phenomenon saw a considerable number of people casually using and abusing a variety of drugs often in dangerous combinations. This pattern of drug use seems to be characteristic of high school age users as well as older heroin users who found it difficult to obtain good quality narcotics. - In 1977, NIDA announced that large quantities of Mexican grown marihuana which had been sprayed with

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	paraquat, under U.S. supervision, was entering the United States market. The announcement caused mild panic among the marihuana smoking public. Subsequent testing on laboratory animals showed that the danger of "irreversible" lung damage due to smoking contaminated marihuana was minimal, and the panic subsided. Marihuana users view this as another "reefer madness" tactic by an unethical government. - Phencyclidine was developed in the 1950's as an anesthetic. Extreme reactions and side effects limited use to veterinary medicine as anesthetic in subhuman primates. - Illicit use for psychoactive properties first appeared in 1966. Originally sold as "Peace Pill", PCP, and later as "Angel Dust." Progressed from relatively obscure drug to drug whose use has created major concern within the drug abuse field and public. Most neophyte users are convinced they are consuming tetrahydrocannabinol (THC). Prevalent use is among white, middle class adolescents. Usually ingested by snorting or smoking parsley or marihuana leaves sprinkled with PCP. Most phencyclidine is illicitly manufactured through a relatively uncomplicated process. - Media response indicates that the use of PCP has suddenly grown to epidemic proportions. Use, however, has grown steadily over the years Only the public response has been sudden Major change has been the emergence of phencyclidine as the drug of choice. - Phencyclidine at present is the most accessible drug other than alcohol and marihuana. - As the common method of ingestion changes to smoking, increased use may occur due to association with smoking marihuana. - As PCP continues to be sensationalized, use will serve ego needs via taking risks or flaunting authority or will continue because of disbelief in "scare tactics" and "horror stories."

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	Although both establishment and underground sources have labeled PCP as legitimately dangerous, use continues. - Use of PCP marks the reemergence of the wide use of exotic hallucinogenic drugs. - Prevalence of PCP use indicates use model in which components are readily available and cheap. The drug can be manufactured with minimal knowledge of chemistry. It can be easily transported and concealed. Wholesale can produce high profits. - Loss of credibility with regard to prevention of PCP abuse can be much more serious than the similar loss of credibility with regard to marihuana. - A 1978 survey by NIDA indicated that cocaine use is on the increase among suburban young adults due to its wide acceptance as a "nondangerous" drug. - For marihuana, the 1970's represent a growing societal inclination toward tolerance of the substance. Although cannabis use is not legal per se, use has become so widespread that several municipalities and one state (Alaska) now impose no penalties for marihuana possession. Approximately 42 million Americans spend \$25 billion a year on marihuana. Ten states have already decriminalized marihuana. The primitive response to convicted adult marihuana users has decreased where such violations remain on the statutes. The problem with relaxation of marihuana laws is that our research data are not complete, particularly that concerning long term effects. - In our culture drug use has become a basic and integral feature. Drug use and abuse among women is on the increase possibly due to increased stress and disappearing taboos. - Physicians also prescribe more psychoactive drugs to women than men. - Leaders of women's movements maintain that male physicians hold the typical view of women as neurotic and prescribe accordingly. Motives for substance use among adolescents and students may be different as counter cultural movements are being replaced with a new conservation and materialism.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
30 minutes	The elderly take more prescribed drugs than any other group and may have greater opportunity for abuse. <u>LECTURE: THEMES IN CHEMICAL USE AND PROHIBITION</u> ● State the following: - Chemical intoxicants have been available in almost all cultures since the beginning of time. - Each culture defines which chemicals will be approved and which forbidden. - Each generation has confronted policies concerning those who disobey injunctions about use. - Conversion of policy into law has often involved prohibitionist movements. - Eight themes have emerged from prohibition movements. 1. The drug is associated with a hated subgroup of the society or a foreign enemy. - People's attitudes toward a particular drug were inseparable from their feelings about that group of people associated with the drug's use. - Association of opium with Chinese - First narcotics law in United States in 1875 aimed at Chinese and attempted control of Chinese as economic group. - Although by the 1900's opium was a primary ingredient of patent medicines, and the majority of users were white, female, and middle aged, association between Chinese and opium continued. - Association of blacks with cocaine - Cocaine was viewed as the direct incentive to crimes of rape by blacks in the South. - Ironically, between 1887-1914, 96 states passed laws regulating cocaine; only 29 passed similar laws regulating opiates. - Association of alcohol with Germans, Catholicism, and growing urban environment - The prohibition drama as an issue of power and tradition: rural Protestant America versus industrial, immigrant cities. - Association of marihuana with Latinos by Anslinger, head of BNDD - Association of narcotics traffic with the "Yellow Peril" was also made by Anslinger; German agents were charged with smuggling drugs to American army bases and schools.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	Such racial and foreign conspiracy associations with different drugs were instrumental in creating the emotional environment from which early prohibitionist laws sprang. - The reporting of drug abuse epidemics of the 1960's and 1970's was similar in theme: hated subgroups were changed to those espousing radical politics, defiance of respected values, and so forth. 2. The drug is identified as solely responsible for many problems in the culture, i.e. crime, violence, insanity The attribution of crimes of violence, insanity, and moral decay has been an integral part of efforts to prohibit illicit drugs. A key element has been the arbitrary definition of "good" and "evil" drugs with evil drugs possessing powers that could defeat all efforts at human control. The early efforts were aimed at tobacco, caffeine and alcohol. After alcohol prohibition these distinctions were classified to include those drugs used by the majority of Americans as good, and those used by the minority as bad. Thus alcohol, nicotine, and caffeine became acceptable, whereas heroin, cocaine, marihuana, and hallucinogens became evil. 3. The survival of the culture is pictured as being dependent on the prohibition or continued prohibition of the drug. Society attributes its problems to the use of a particular drug. Society assumes problems will disappear as prohibition becomes effective. 4. The concept of "controlled usage" is destroyed and replaced by a domino theory of chemical progression. Use of a drug targeted for prohibition inevitably leads to use of other drugs (already prohibited or defined as evil). Common contention in 1800's was that alcohol abuse was the basis of morphinism just as 1960's saw marihuana use as the stepping stone to heroin use. Use and abuse of drugs were equated; the drug was assumed to have powers over which no one could assert control. 5. Drug associated with moral corruption of the young, particularly sexual. Cocaine use was associated with sexual attacks white women by black men.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	During Prohibition, alcohol was said to cause sexual excesses. Media coverage of the 1960's constantly associated drugs with communal living and cohabitation. 6. Both the user and supplier of the drug are defined as fiends, always in search of new victims; usage of the drug is considered to be contagious. Since the Harrison Narcotic Act of 1914, the user and supplier of the drug have been characterized as evil. Drug use reaches "epidemic" proportions and people who use drugs are considered to be "pushers" even though most persons get drugs through friends. 7. Policy options are presented as total prohibition or total access Compromise is precluded Reduction in criminal penalties seen as first step toward legalization of a particular drug. 8. Anyone questioning any of the above assumptions is bitterly attacked and characterized as part of the problem that needs to be eliminated The attack on existing policies opened one up to charges ranging from lack of patriotism to conspiracy. - The burdensome legacy left by these prohibitionist themes severely limits attempts to address chemical mood alteration in our society. The preoccupation with chemistry has prevented focus on behavioral excesses. The emotionally loaded language used to discuss the subject splits thinking into a good/bad dichotomy. Treatment is defined as "good" only if it produces total abstinence, thereby making methadone maintenance clients second class citizens. Preoccupation with illicit drugs continues to detract attention from abuse of licit drugs. Prohibitionist rigidity has spawned anti prohibition, repealist movements which address the situation in equally simplistic, irrational terms. Policy alternatives are politically risky due to association of drugs with crime, insanity, and so forth. <u>Summary</u> ● Current strategies in the use and abuse of mood altering drugs continue to be based on a set of beliefs generated

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
60 minutes	by the 19th and 20th century prohibitionists. ● These prohibitionist beliefs, now deeply ingrained in American culture, hinder attempts to reform an outmoded social policy. The integration of these beliefs into our culture has been so complete that to question them is immediately perceived by members of the culture at large as an attack on the institutions that have fostered these beliefs, e.g., our national leaders, the law, our educational and religious institutions, and the family. ● The development of national policies toward mood altering drugs has not and cannot be rationally addressed until we expose and modify the irrational fears and beliefs upon which current policies are based. <u>SMALL GROUP ACTIVITY: HISTORICAL SCRIPT</u> <u>NOTE TO TRAINER:</u> Now that the lecture material on <i>Historical/Social Perspective</i> is complete, allow for discussion of trends and principles by the large group. ● The questions, answers, and comments participants make are based <u>first</u> on the lecture material, and <u>second</u>, and most importantly, on their individual script information (i.e., their own beliefs and attitudes which have formed as a result of their experience). ● The values, opinions, judgments , facts (true/false), attitudes are all different, and each participant will have a different belief system, specifically about the content of this course. ● Explain the small group activity: Participants should fill out the historical script information sheet, break into four groups and discuss the results. Allow participants to discuss openly and freely. Make them aware that they can change a personal belief or attitude about any information they want to. <u>TRAINER'S OPTION:</u> Use the structural exercise as a discussion outline in small groups without having individual participants fill out the information sheets.
5 minutes	<u>SUMMARY OF MODULE III</u> ● State the following: - As we look at the social and historical development of substance use in this country, it is readily apparent that drugs have been used for pain killing, social recreational, and intensifying functions. There have been legal responses to substance use in this country. However, rarely have laws been so widely disregarded as the current criminal laws against drug possession and sales. When a person uses an illegal drug, he faces not only the effects of the drug, but also the consequences of society's designation of him as a criminal. - It is hard to separate the effects of the drug laws from simultaneous factors like personal and lifestyle changes or drug effects. However, perspectives and indications

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	can be drawn from past experience that represent consequences of the drug laws on a certain group, more than they represent the effects of the drugs themselves or characteristics of the groups which take them. - The perspective is as follows: 1. Use of any drug consists of an impulsive or personal decision to try the substance which the law has little effect on. 2. A social group uses drugs and develops a rationalization for its illicit activity, as well as a shared conception of itself as an "outlaw culture." 3. The group devises theory of political dissent, and connects it to other events and information. 4. The individuals develop a heightened sensitivity to arguments for drug use that are based on civil liberties and feel controlled unjustly by the drug laws, as they seek to withdraw into their own private pursuits. 5. They eventually develop a more tolerant perspective on drug laws and an understanding of cultural contradictions and the relativity of social norms. - Before long the generation now in its teens and twenties will be in its thirties and forties. Judges, prosecutors, and even narcotics agents, along with legislators and teachers, will be drawn from the pot smoking, coke sniffing, pill popping generation. When it comes, they will find themselves confronting the same basic drug issues their elders confront today. - How can the damage done by alcohol, nicotine, and other drugs be minimized? How can young children be protected from drug excesses? How can adolescents be helped to exercise prudence? How can nonchemical alternatives to the drug experience be developed and popularized? How can human life be enriched? - We hope that when the next generation takes over, it will be cognizant of the use and misuse of drugs in the past, and forewarned against repeating the errors society is making today. <u>END OF MODULE</u>

HISTORICAL/CULTURAL BELIEFS ABOUT SUBSTANCES

1. During my grandparents generation drugs were considered:

Alcohol was considered:

Habits were considered:

Positive

Negative

2. What my mother and father said about drugs:
3. In my high school drugs and alcohol were considered:
4. What I remember most about habits is (positive and negative)
5. In my hometown, people who use and abuse substances are described as:
6. In the place I work, drugs and alcohol use and abuse are considered:
7. Generally, my attitude toward drugs/alcohol have become:

NOTE: ALL QUESTIONS ARE TO BE VIEWED FROM THE HISTORICAL, SOCIAL, CULTURAL EVALUATION PERSPECTIVE.

MODULE IV: SUBSTANCE ACTIONS

PERSPECTIVE

The purpose of this module is to provide a description of psychoactive drugs in a pharmacological context. Following a discussion of general drug characteristics and effects on human behavior, and a definition of pharmacological concepts, specific actions are presented for each major drug classification.

CONTENTS

Overview of Module and Introduction to Pharmacology	(20 Minutes)
Lecture/Discussion: Origin of Drugs and Drug Effects	(30 Minutes)
Lecture/Discussion: Drug effects and the Major Impact On Human Behavior	(40 Minutes)
Lecture/Discussion: Definition of Terms	(50 Minutes)
Lecture/Discussion: Classification of Drugs	(20 Minutes)
Lecture/Discussion: Narcotic Analgesic	(20 Minutes)
Lecture/Discussion: General Depressants	(20 Minutes)
Lecture/Discussion: Stimulants	(20 Minutes)
Lecture/Discussion: Hallucinogens	(30 Minutes)
Lecture/Discussion: Cannabis	(30 Minutes)
Lecture/Discussion: Summary of Module IV	(10 Minutes)

Total time: 4 Hours 50 Minutes

OBJECTIVES

Using the information presented in Module IV as criteria at the end of this module and without the aid of notes participants will be able to:

1. Identify various substances according to their classification as narcotic analgesic, general depressant, stimulant, hallucinogen, or cannabis.
2. Identify the term "tolerance."
3. Identify at least one drug effect on human perception.
4. Identify at least one drug effect in psychomotor functioning.
5. Identify at least two variables which account for drug related risk.
6. Identify at least one physiological effect of opioids.
7. Identify at least one psychological effect of cannabis.

MATERIALS REQUIRED

- Resource Paper "Substance Actions" by Ronald K. Siegel
- Newsprint, magic markers, and masking tape

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
20 minutes	NOTE TO TRAINER: The decision on how to present the content of this module is critical. Most of the information presented during this course represents a particular perspective, bias, hypothesis, or conclusion and can be prefaced as such. This information can be used to allow participants to agree or disagree while clarifying or formulating their own opinions, attitudes and perceptions about drugs and drug users. Pharmacology, on the other hand, tends to be more exact, relying almost exclusively on factual data resulting from scientifically conducted research. Ironically, most of the glaring misinformation and misconceptions surrounding substance abuse concerns what effects various substances actually have on human functioning. It is of the utmost importance, therefore, to present participants with factual information. Because of the emphasis placed on pharmacological data, hundreds of researchers continuously study drugs and their effects with the result that these "facts" are 1) constantly being revised and updated through additional experiments and 2) occasionally contradicted by studies employing different research methodologies. As a trainer, you must decide whether to present this material yourself or retain as a consultant one whose profession requires staying abreast of latest research developments. Another decision to be made at this point concerns the kind of resource(s) that are to be used. The <u>Resource Manual</u> contains no pharmacology articles (except the lecture paper) because of the tendency for such articles to become quickly outdated or incorrect. If you present this module yourself, you have the responsibility of selecting and studying appropriate (recent and correct) articles to back up your presentation. In order to facilitate this, an extensive and recent (as of this printing) reference list is included with the lecture paper. On the other hand, if you choose to retain a consultant, you have the responsibility of engaging a pharmacologist. A good choice would probably be a person who specializes in psychopharmacology rather than clinical pharmacology. Participants in this training will benefit more from an understanding of the effects of drugs on behavior, cognition, or other human functions than from a knowledge of the subcellular distribution of H⁺-delta-9-tetrahydrocannabinol in the central nervous system of laboratory animals. In briefing a consultant on content you want covered, you can use the lecture outline to define major topic areas. Finally, whether you present the material yourself or retain a pharmacologist, it would be wise to consider the significance of "street pharmacology." Drugs purchased from street vendors are often not what they are represented to be and even when they are it often happens that they are so contaminated by additives that a user may experience multiple substance effects. This aspect of substance actions is an integral part of this module. OVERVIEW: MODULE IV ● Review the objectives of Module IV with the whole group. ● Explain the sequential flow of the Module, highlighting: - Origin of Drugs and Drug Effects - Drug Affects and the Major Impact on Human Behavior

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	- Definition of Terms - Classification of Drugs - Effects of Specific Drugs • <i>Introduce the module as follows:</i> - Information presented thus far has represented various perspectives and opinions about drugs. - This module will present factual information and provide an accurate description of various psycho-active substances. - This information is based on the most recent, correct research findings available and may contradict or otherwise differ from data you may have previously received. - If this is the case consider that because of the importance of accurate information on the effects of the various substances on humans, research is conducted on a continuous basis often updating or negating earlier findings. - Consider also what was discussed in Module II in terms of "Perception and Definitions." <u>INTRODUCTION TO PHARMACOLOGY</u> • <i>State the Following:</i> - A traditional belief in drugs as magic elixirs that magically transform people's behavior still persists. Some are convinced that drug users become homicidal maniacs. Others believe that drug users become creative geniuses. • <u>Process for Group Discussion</u> The principle of magical drug effects can be illustrated by the most common group drug experience in the United States today—the cocktail party. Consider the last such party you may have attended or observed. There, in the same setting, with the same set or expectation of having a good time, individuals are consuming approximately equal amounts of the same drug (alcohol) over relatively the same period of time. Yet the effects widely differ. Some people become boisterous and aggressive. Others become passive, lethargic, and sleepy. Still others become silly, amorous, or even lascivious. This illustrates that there is nothing magical about the way in which alcohol works. It works in combination with the basic pharmacology of the drug and the basic personality of the user. The resultant effects are not uniform. - It is important to use the <u>specification principle</u> Address specific drugs in terms of purity, dosage route of administration, duration of action

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
30 Minutes	Discuss in terms of personality, health, past use. Include other variables such as set and setting. - Premature generalizations about drugs, e.g., "speed kills," "wine is healthful" are simplistic and misleading. <u>NOTE TO TRAINER:</u> The following lecture outline is based on the resource paper "Substance Actions". Each lecturette is preceded by an abstract of the content. Points for group discussion illustrate certain concepts throughout the lecture and are indicated in the activities outline. <u>LECTURE/DISCUSSION: ORIGIN OF DRUGS AND DRUG EFFECTS</u> <u>Abstract</u> This lecture discusses the history of drugs and drug use. Humans first learned of the ways in which drugs could be used by watching animals. The naturally occurring drugs used by animals include the tannins and alkaloids produced by angiosperms and plants such as coca, coffee, tobacco, mungo root, cowbane, catnip, Hare's lettuce, and pigeon candy. The five major routes of drug ingestion—oral, nasal, injection, anal, and absorption through the skin are also discussed. I. DEFINITION OF TERMS A. <u>pharmacoi</u>—ancient Greek—"human medicine"—term applied to poisons and other drugs B. <u>drug</u>—old German—"dry herb" II. "Narcotic" drugs developed from <u>angiosperms</u>, flowering plants of the Mesozoic Era A. Angiosperms produce <u>tannins</u> 1. Antifungal agents for plants 2. Bitter tasting 3. If taken internally (by animals or humans), inhibit protein digestion and enzyme activity and cause liver lesions if taken in excess B. Angiosperms also produce alkaloids—a major group of drugs 1. Taste bitter 2. Have a wide range of psychological, growth disturbing, and toxic effects ● <u>Process for Group Discussion:</u> If you chew a piece of leaf material from a plant or tree you'll probably notice an immediate bitter taste. The more you chew, the more pronounced the bitterness. Your immediate reaction may be to spit it out and reject further eating of the plant. That's exactly what nature intended to happen. (It would be useful to have plant leaves to pass out to participants for them to chew to illustrate this point.)
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TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	III. <u>EFFECTS OF ALKALOIDS ON ANIMALS AND HUMANS</u> A. Numbing of mouth B. Dinosaurs may have become extinct as a result of alkaloid poisoning 1. Failed to evolve livers that could detoxify drugs 2. Eggshells changed 3. Hypothalamus size changed, indicating stress 4. Fossils found in contorted positions suggestive of death by alkaloid poisoning C. Even today, animals often die from accidentally ingesting lethal amounts of highly toxic alkaloid plants such as wild tobacco D. <u>Datura</u> plant cause of Jamestown 1676 and Anthony's legion 38 B.C. accidents 1. Contains <u>scopolamine</u> and <u>atropine</u> so causes intoxication, sleepiness 2. Known as "Jamestown" or <u>jimson weed</u> since Jamestown outbreak E. Periodic outbreaks of <u>ergotism</u> common in Middle Ages 1. Resulting from accidentally eating rye fungus- the source of LSD 2. Epidemics in France as far back as 857 A.D. and as recently as 1951 3. 944 A.D., 40,000 people died from ergotism IV. <u>EARLY USE OF DRUGS</u> A. Humans discovered drugs from observing their effects on animals 1. <u>coffee</u> (900 A.D.) a. Discovered by Abyssinian goatherds b. Coffee beans made goats "frisky" 2. <u>Mungo root</u> - India a. Discovered by watching mongooses using it after snake bites b. Root has antibacterial properties B. Observation of animals led to more efficient use of plant resources by humans 1. <u>Coca</u> - first used by pack animals traveling in Andes when they were deprived of normal food

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	2. Coca sustained animals, so humans copied leaf-chewing behavior a. 100 grams of coca leaves contain 305 calories, 18.9 grams protein, 46.2 grams carbohydrates b. Satisfies Recommended Dietary Allowance for calcium, iron, phosphorus, and vitamins A, B2, and E C. Names of plants reveal something about their observed effects 1. Some named for apparent adverse properties a. Cow Bane (hemlock root) killed cattle and other grazing animals b. Iroquois Indians used hemlock roots for suicide c. Socrates died from hemlock juice 2. Other plants identified by attraction of animals to them a. Catnip - contains hallucinogen which attracts cats, later used by humans as substitute for marihuana b. Hare's lettuce - contains narcotic-like alkaloid 1. Used by rabbits for stimulant and medicinal effects 2. Used by humans as opium substitute c. Pigeon candy - early vernacular name for hempseeds (cannabis or marihuana) 1. Derived from stimulating effects on pigeons 2. Ancient Greeks ate hempseeds V. <u>HUMAN EXPERIENCE WITH DRUGS</u> A. Use of alcohol, opium, and Cannabis developed early 1. May date from 40,000 B.C. 2. Hunting and gathering tribes began such experiments B. Alcohol fermentation 1. Wine and beer use dates from 6400 B.C. 2. 4500 B.C. in Anatolia, Egyptian farmers learned to maximize fermentation by molting their grain or sprouting it before use

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	3. African bushmen made alcoholic drink from fermented fruit after watching elephants get drunk from it D. <u>Cannabis</u> use 1. Older than alcohol or opium 2. Chinese pharmacology treatise, 2737 B.C. refers to its medicinal uses E. Tobacco smoking and chewing of Kava, beech nut, and coca leaves were practices dating from Paleolithic times VI. <u>ROUTES OF INGESTION</u> A. Orally--the oldest route B. By sniffing or inhaling fumes from burning plant 1. Tobacco and opium 2. Direct effect in minutes C. Injection 1. Based on application of plant drugs to open wounds and sores 2. Animal quills and sharpened bones the first hypodermic needles 3. Animal bladders the first syringes D. Enemas 1. From Aztecs, who had uses for over 461 plant drugs 2. For such drugs as tobacco, wine, hallucinogens 3. Sedated victims before sacrifice with mixture of several drugs including anesthetic from solandra plants a. Also thrown in victims face b. These drugs today are <u>scopolamine</u> and <u>atropine</u> E. Ointments 1. By "witches" during late medieval and Renaissance periods 2. Scopolamine and atropine absorbed quickly through skin

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
40 Minutes	<u>LECTURE/DISCUSSION: DRUG EFFECTS AND THE MAJOR IMPACTS ON HUMAN BEHAVIOR</u> <u>Abstract</u> This lecture describes the effects of drugs on various aspects of human behavior. Drugs can affect perception, memory, mental states, and psychomotor functioning. Other effects include the possibility of psychotic episodes, anesthesia, and abnormal reactions. • Present the following lecturette: I. <u>EFFECTS OF DRUGS ON PERCEPTION (VISION AND HEARING)</u> A. Space and time relationships may be altered 1. In simulated driving tests, after moderate doses of marihuana, some subjects perceived themselves as going faster than they actually were 2. Impression of better sexual performance 3. Drugs may be merely a facilitating factor in these things; the affect of setting maybe the true cause B. Increase in visual threshold caused by LSD and other hallucinogens 1. Colors seem more saturated; sounds louder 2. Delirium tremens form alcohol also involves hallucinations and spatiotemporal distortions C. Changes in specific anatomic areas of sensory organs 1. Phenothiazines (tranquilizers and sedatives) have caused pigmentary degeneration of retina, and occasionally, blindness 2. Some antidepressents (imipramine) have caused glaucoma D. Drugs may interfere with users' perception of her/his own abilities 1. Student amphetamine users tended to overestimate their capacity to make sound judgements and solve mathematical problems 2. Amphetamine using soldiers tended to overestimate their performance on routine monotonous tasks E. Problem with this alteration is that it's unexpected 1. User must learn to compensate for these effects.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	2. Degree to which such behavior concerns society is related to the type of conduct affected-being late for an appointment is not as bad as driving poorly II. <u>EFFECTS ON MEMORY</u> A. Amnesia - a state of decreased information retrieval produced by trauma or chemicals 1. Precipitated by electro-convulsive shock, anoxia, anesthesia, carbon dioxide, and certain antibiotics 2. Psychoactive drugs produce amnesia through ultra short acting barbiturates or ether 3. The "blackouts" commonly reported after drug taking are drug induced forms of amnesia B. Forgetfulness-a state of decreased retrieval produced by time or by preoccupation with other sensory input 1. Moderate doses of alcohol or barbiturates can reduce memory of newly acquired knowledge 2. Highway safety device once proposed would have taken advantage of this by requiring driver to remember a random sequence of numbers before engaging ignition. C. Recall may occasionally be facilitated by drugs 1. Marihuana, LSD, and Ketamine act to retrieve stored images 2. Use of "truth serum" in psychoanalysis or espionage 3. Nitrous Oxide (laughing gas) has been shown to reduce forgetfulness in some cases III. <u>EFFECTS ON MENTAL STATES</u> A. Drastic changes in mood and psychological status 1. Alcohol and other sedatives reduce inhibitions 2. High dosage and prolonged use of some drugs (e.g., alcohol and barbiturates) increase in general irritability. 3. May also cause aggressive threatening acts. 4. Sense of bravado from amphetamines, cocaine, and alcohol 5. Euphoria from initial opiate experiences 6. Garrulousness, hyperactivity, rash promises, from amphetamines

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	7. Depressive states and suicidal acts from the sedative-hypnotic drugs, which have been erroneously promoted as tranquilizers B. Almost all psychoactive drugs can produce transient states of confusion and delusion 1. Transient panic reactions from hallucinogens when user feels s/he is losing control of his/her environment 2. Fear of suffocation from <u>phencyclidine</u> 3. Similar fears from hydrocarbon inhalant use 4. Overdoses of alcohol, barbiturates, other sedative-hypnotics cause states of acute confusion C. Subacute and chronic psychotic episodes 1. Paranoid reactions associated with major stimulant drugs - cocaine, amphetamines, amphetamine-like substances 2. Prolonged "sprees" may cause psychosis similar to those from LSD 3. Can cause acute psychosis in "normal" people D. Disorders cannot be related specifically to changes in brain tissue, although there may be a link E. Social significance of drug induced mental changes 1. Illusions and hallucinations causing user to misinterpret the environment and react in an abnormal manner 2. Takes two forms a. Complete withdrawal and negativism b. Violence and aggression 3. In either case, regard for welfare of self or others may be impaired or lost, leading to violent behavior, suicide, or homicide IV. <u>EFFECTS ON PSYCHOMOTOR FUNCTIONING</u> A. Depressant drugs - alcohol, barbiturates, volatile hydrocarbons 1. Produce varying degrees of motor incoordination a. Alcoholic "black outs" b. unconsciousness and anesthesia 2. Impair function of central nervous system a. difficulty in walking, driving

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
50 Minutes	b. May make user unable to perform all complex voluntary reflex actions c. Unfortunately, physical impairment usually comes <u>before</u> recognition of that state - a drug user may be able to "walk a straight line" but not drive a car B. Stimulant drugs - amphetamines 1. Mask <u>subjective</u> feelings of fatigue 2. Cannot correct adverse effects of fatigue on attention, visual discrimination, and other factors controlling psychomotor functioning a. Amphetamines used by both Allies and Axis powers in WWII b. Some American astronauts took amphetamines prior to splashdown and re-entry maneuvers <u>LECTURE/DISCUSSION: DEFINITION OF TERMS</u> <u>Abstract</u> This lecture discusses the meanings of the various words encountered in the drug abuse treatment vocabulary. Drug and drug abuse are defined from both a scientific and social viewpoint. The meaning of and possible reasons for drug use are also explained. These reasons include relief from hunger, pain, and so forth, and the pleasure of new experiences. Experimental recreational, circumstantial/situational, intensified and compulsive patterns of drug use are discussed. In addition, the risks and benefits of drug use are presented. Other topics included in this lecture are compulsive drug use and dependence, the meaning of addiction and narcotic, drugs as reinforcers, tolerance to opiates, alcohol, barbiturates, and related hypnotics, cross-tolerance, psychological dependence, physical dependence, cross-dependence, drug combinations, synergism, and the placebo effect. A suggestion for group discussion is included. • Present the following lecturette: I. Drug and drug abuse A. <u>Scientific meaning</u> "any substance other than food, whose chemical nature affects the structure or function of the living organism." 1. From this definition, drug includes some agricultural and industrial chemicals, as well as medicinal and recreational compounds 2. Physician definition- treatment substance B. Social meaning of drug abuse 1. Synonyms for "social disapproval" 2. 1973—National Commission of Marihuana and Drug Abuse said term should be discontinued

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	C. Drug abuse creates impression that all drug using behavior falls into two categories: 1. Drug use which is good, safe, and without social consequences 2. Drug "abuse" which is bad, harmful, without benefit, and carrying a high social cost II. Drug Use A. Reasons for drug use 1. Relief from cold, hunger, deprivation, anxiety, pain, boredom 2. Pleasure 3. New experiences (primarily psychoactive drugs) B. Effects of drugs vary depending on amount, frequency of use, user characteristics, setting 1. Different cultures have different opinions on drug use 2. Each society's judgments are based on prevailing values concerning specific drugs, their effects, the reasons for their use, and people who use them C. Drugs fulfill some real or imagined need 1. Behavior that does not fulfill a need will be extinguished 2. Need for drug use may be closely related to its real or imagined effects 3. May be grounded in social rather than chemical need 4. Use of specific substances may determine group membership or status within group or among groups 5. May function as symbol or symptom of rebellion, alienation, independence, sophistication III. Forms of Drug-Using Behavior A. Experimental 1. Most common type of drug use 2. Short term, non patterned trial, motivated curiosity or desire for altered mood 3. Usually occurs among youths in groups B. Recreational 1. Occurring in social settings among friends or

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	acquaintances who desire to share experience they see as acceptable and pleasurable 2. Voluntary and patterned 3. Tends not to escalate to more frequent or intense use patterns 4. No dependence in any "real" sense C. Circumstantial/Situational 1. Most rapidly growing pattern of drug use in the U.S. 2. Motivated by the user's perceived need or desire to achieve effect and cope with specific problems, situations, or conditions a. Includes students who use stimulants prior to exams b. Long distance truckers for extended endurance and alertness c. Military personnel to cope with combat situations d. Athletes, for improvement of performance D. Intensified 1. Smaller group of drug users whose behavior has escalated from recreational or circumstantial use patterns 2. Drug use occurs daily, motivated by a. An individual's perceived need to achieve relief from persistent problems or stressful situations b. To maintain a certain self-prescribed level of performance 3. Includes "problem drinkers," "heavy social drinkers," housewives who consume barbiturates, executives who "eat" tranquilizers 4. Another group of intensified users--youths a. Turned to drugs because of unsatisfying life styles b. Individual remains integrated into larger social and economic structure c. But regular use may still constitute "dependence" E. Compulsive 1. Smallest number of users

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	2. Patterned behavior at high frequency and high levels of intensity a. High degree of psychological dependence b. Perhaps physical dependence 3. Distinguishing feature--drug use dominates the individual's existence; preoccupation with drug taking precludes other social functions 4. Chronic alcoholics and heroin dependent persons IV. Drug-Related Risk A. Escalates with increasing dose and higher frequency of use B. Varies with method of use 1. Highest-intravenous 2. Lowest-oral C. Varies with setting, particularly with low doses D. Varies according to user's ability to control intake and detoxify the drug 1. Greatest risk occurs when dose exceeds body's ability to detoxify it 2. In this case, the brain is never drug free E. Varies according to "set" of user 1. Expected and desired outcome 2. User's personality 3. User's ability to compensate for drug effects (i.e., past experience) 4. Ability to limit intake to predetermined capacity F. Increases significantly if use more than one drug concomitantly G. Other risks a function of social policy rather than drugs 1. Unintentional overdoses among those securing drugs illegally (no way to control quality and potency) a. Alcohol induced blindness significantly higher during Prohibition than now because no quality control b. Street "cut" drugs increase bulk with insoluble materials which increase risk of pulmonary embolism, circulatory disorders

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	2. Much of drug-related crime, particularly crimes against property, may result from social policy which prohibits drug availability 3. Marihuana risk from spraying of fields with Paraquat and 2,4-D insecticide a. Both drugs toxic to humans b. Reports of irreversible lung damage from paraquat-contaminated marihuana 4. Criminal penalties also socially developed risks of drug use V. Benefits of nonmedical drug use to individual user A. Marihuana has some therapeutic promise currently being investigated 1. Intraocular pressure reduced in both normal subjects and glaucoma patients taking oral THC or smoking marihuana 2. Asthmatics respond to THC when they take it orally, smoke it, or when it is sprayed into their nostrils B. Cocaine shows some promise as short acting anti-depressant VI. Terms associated with compulsive drug use and dependence A. Psychological dependence (habituation) 1. Individuals eventually behave as if drug-produced effects necessary to maintain optimal state of wellbeing 2. Intensity may vary from mild desire to "craving" or "compulsion" to use drug a. Compulsive drug need characterized by preoccupation with getting and using the drug b. Behavior like that of chronic relapsing disease B. Tolerance 1. When, after repeated administration, a given dose of a drug produces a decreased effect or 2. Conversely, when larger doses required to obtain effects observed from original dose C. Physical dependence 1. An altered physiological state produced by repeated use of the same drug

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	2. Continuation of use required to prevent the withdrawal (Abstinence syndrome) associated with each drug VII. Addiction A. From the Latin <u>addicere</u> - giving or binding of one thing or person to another B. By late 16th century, "to addict" meant to devote, give up, or apply habitually to C. Now generally identified with any sort of bad habits or vices D. Proper definition - "compulsive drug use characterized by overwhelming involvement with the use of a drug, the securing of its supply, and a high tendency to relapse after withdrawal" 1. Addiction thus viewed in term of <u>quantity</u> of drug use rather than <u>quality</u> 2. In most cases no way to mark dividing point between <u>compulsive</u> use and <u>addiction</u> 3. All addicts are drug dependent but this may only be <u>psychological</u> 4. It is possible to be physically dependent on drugs without being addicted and to be addicted without being physically dependent VIII. Narcotic A. From Greek <u>narkosis</u> - "benumbing" or to be in a stupor B. Often incorrectly applied to a wide variety of drugs from marihuana to alcohol 1. <u>Scientific meaning</u>: drugs related botanically to the opium poppy and pharmacologically to opium, morphine, and heroin 2. <u>Medical meaning</u>: synthetic drugs with morphine-like effects on user 3. <u>Legal meaning</u>: anything the legislature of a state wants a. In some states, all drugs with morphine-like activity b. Also grossly different (scientific, medical drugs like cocaine and marihuana IX. Drugs as reinforcers A. Human tendency to take drugs shared with other animals 1. All learn to self administer the commonly used nonmedical drugs

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	2. Given continuous access, animal self administration patterns very similar to people's B. These observations suggest that preexisting psychological problems <u>not</u> the reason for drug use, but the drugs themselves powerful reinforcers of drug-taking behavior 1. Animals prefer "cocaine, a drug also preferred by people" 2. Animals will never self administer Thorazine, which is also rarely used nonmedically by people 3. Animals will avoid hallucinogens unless there is nothing else to do or eat in the environment 4. When stressed, animals will use alcohol and similar drugs to reduce anxiety X. Tolerance to opioids A. Does not develop uniformly to all actions of a narcotic drug B. Tolerance characterized by 1. Shortened duration and decreased intensity of effects of drug (analgesic, euphorogenic, sedatival, other CNS depressant effects) 2. Marked elevation in average lethal dose C. Animals that are tolerant of opioids may metabolize them somewhat more rapidly 1. These changes cannot fully account for all symptoms of tolerance 2. Tolerant animals are only slightly depressed by doses of morphine or methadone that fully depress nontolerant ones D. Most opioid tolerance must be attributed to some form of nervous system adaptation E. Effects of tolerance 1. Does not necessarily cause increased drug use 2. Can effect patterns of use by increasing amount of drug necessary to produce euphoria 3. Increased use can, in turn, enhance the risk of toxic effects or produce other problems XI. Tolerance to alcohol, barbiturates, and related hypnotics A. Tolerant drug users show no increase in concentration of alcohol or barbiturate in blood to lethal level

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	B. Animals tolerant to short acting barbiturates (hexobarbital, pentobarbital), alcohol, and other non barbiturate hypnotics (meprobamate) show more rapid enzymatic degradation of the drug than non-tolerant animals 1. Tolerant animals show decreased duration and intensity of response to given dose, because they are adapting to drug 2. With help of increased enzyme activity, tolerant animals dispose of drugs rapidly XII. Cross tolerance A. Tolerance between different drugs 1. Individuals tolerant to LSD exhibit cross tolerance to mescaline and psilocybin 2. Existence of such cross tolerance shows that LSD, mescaline, psilocybin all share common metabolism in body B. Alcoholics can be unusually resistant to sedatives, hypnotics, and anesthetics because of cross tolerance to other general depressants 1. Alcoholics require large amounts of anesthetics before surgery XIII. Psychological/psychic dependence A. Refers to user's attitude that the effects produced by a drug, or the conditions associated with its use, are necessary to maintain wellbeing B. Researchers believe psychological dependence to be a result of rewards of drug experience C. Can become a craving or compulsion - <u>Process for Group Discussion:</u> One can become psychologically dependent on drug and nondrug stimuli such as television. Consider the average American in 1978 who watched over 6 hours of TV per day. According to one survey these people claimed that watching TV was relaxing and helped them escape from day-to-day problems. They felt a compulsion to watch almost anything. Chances are that if you pulled the plug on such a person's TV set, or otherwise prevented him from viewing the screen, you would precipitate behavior directed toward continued viewing (i.e., fixing the set, using a spare TV, watching a friend or neighbor's TV, etc.). Indeed, you might even precipitate behaviors like irritability, aggression, frustration, and other signs of craving. From such observations one could conclude that the viewer was not only psychologically dependent on TV, but may have been physically dependent as well since you observed behaviors reminiscent of withdrawal. It is often difficult to separate psychological dependence to drugs from some forms of physical dependence.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	XIV. Physical Dependence A. Dependence of body tissues on the continued presence of a drug B. Manifests itself as withdrawal or abstinence syndrome 1. Characterized by rebound effects in some body systems initially modified by drug a. General depressants elevate the seizure threshold, but withdrawal causes spontaneous seizures b. Morphine depresses spinal reflexes, but they are hyperexcited during withdrawal c. Amphetamines eliminate fatigue, suppress appetite, elevate mood; withdrawal symptoms are fatigue, hunger, depression d. Nicotine suppresses anger; irritability a common complaint of quitting smokers 2. Symptoms due to drug caused changes in nervous system C. Time required for symptoms depends on several factors 1. How CNS function altered, length of alteration 2. Clinical observation depends on a. Criteria for symptoms b. Sensitivity of techniques used to detect withdrawal phenomena c. Rate at which drug removed 3. Patients receiving therapeutic doses of morphine several times daily for 1-2 weeks will have only mild withdrawal symptoms 4. Patients given opioid antagonists (naxalone) will have severe withdrawal reaction a. Physical dependence to narcotic started by first dose and develops rapidly b. In former heroin addicts, naxalone precipitates mild withdrawal one week after single low dose of methadone 5. Pentobarbital and alcohol also have short dependence times a. When rapidly metabolized drugs are used, earliest signs of withdrawal come very fast

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	6. Long-acting hypnotics (phenobarbital) produce slower, less severe withdrawal symptoms D. Relationship between compulsive drug use and physical dependence variable 1. Large proportion of Vietnam Soldiers used heroin a. about 50% became physically dependent b. But a substantial group stopped heroin use on their own before return to U.S. 2. Some degree of dependence on CNS depressants (including alcohol) comes after short continued use, but majority of these users do not become "addicts" 3. Physical dependence now seen not a direct cause of compulsive use but as one of several factors contributing to its development and the tendency to relapse after withdrawal XV. Cross dependence A. ability of one drug to suppress physical dependence on another 1. Partial or complete 2. Degree related more closely to pharmacological effects than chemical similarities B. Any potent opioid will show cross dependence with others 1. Partial cross dependence between alcohol and barbiturates 2. Alcohol can substantially suppress symptoms of barbiturate withdrawal 3. Some cross dependence between barbiturates and volatile anesthetics C. Methadone-morphine substitution process withdrawal symptoms characteristic of methadone (long acting drug) 1. Clinical implications since withdrawal symptoms from long acting drugs less severe than short acting, although more protracted 2. The basis for substitution treatment for physical dependence for both opioids and CNS depressants XVI. Drug combinations A. Antagonism - one compound may offset action of other i.e., combined effect of two drugs may be less than the two summed separately

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	1. Valium will calm insomnia produced by stimulants 2. Alcohol or marihuana users will take cocaine to diminish lethargy B. <u>Potentiation</u> - combination of drugs may be additive 1. Stimulant Ritalin will heighten stimulating and arousing effects of hallucinogens 2. Not uniform for all drug effects a. Ritalin will not effect visual stimulation of LSD b. nicotine will heighten cocaine effects but not affect cocaine induced pupil dialation C. <u>Synergism</u> - different situations in which combined effect of two or more drugs is greater than the effect of each agent added together 1. Cocaine and amphetamine may combine to produce hypertensive crisis at doses far below such levels 2. PCP can combine with any stimulant to produce seizures which cannot be predicted by the simple addition of the two 3. Some drugs can be synergistic with themselves over long periods a. daily low doses of amphetamines can cause <u>kindling</u> - even if dose not raised, threshold for seizure lowered D. <u>Placebo effect</u> - an inert substance represented to be an active drug 1. Under appropriate circumstances with great anticipation, <u>placebos</u> can produce striking effects a. Clinical experiments show that 33% of patients recovering form surgery get pain relief from placebo injections 2. Trust and anticipation major factors a. Trust in enthusiastic recommendations of others about certain "drug" b. Anticipation so powerful, it actually produces effect 3. Examples of mass placebo effects a. Smoking banana skins for psychedelic high

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
20 Minutes	b. Use of lettuce extract to simulate opium intoxication 4. Effect specific to individual and setting rather than chemical properties of substance involved, therefore, despite placebo effect, it is not considered a drug <u>LECTURE/DISCUSSION: CLASSIFICATION OF DRUGS</u> <u>Abstract</u> Drugs are divided into two categories: psychoactive, which affect the brain, and nonpsychoactive, which do not. Psychoactive drugs can be further divided into nine major groups: sedatives and hypnotics, stimulants, hallucinogens and psychedelics, narcotic analgesics, volatile solvents, non-narcotic analgesics, clinical antidepressants, major tranquilizers, herbal intoxicants. This lecture describes the uses and effects of these substances. c Present the following lecturette: <u>NOTE TO TRAINER:</u> It might be useful to use a drug chart as a training aid. The "Chart of Drugs and Major Effects" in <u>Playboy</u>, September 1978, p. 159 ff. is recommended. I. Two broad categories of drugs A. Nonpsychoactive 1. Those substances which in normal doses do not affect the brain 2. Vitamins, minerals, local anesthetics B. Psychoactive drugs 1. Substances which do affect the brain and behavior 2. Further divided into 9 major classes based primarily on their psychological effects and pharmacological makeup a. Sedatives and hypnotics b. Stimulants c. Hallucinogens and psychedelics d. Narcotic analgesics e. Volatile solvents f. Nonnarcotic analgesics g. Clinical antidepressants h. Major tranquilizers i. Herbal intoxicants

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	II. Major psychoactive drug functions A. Sedatives and hypnotics (alcohol, barbiturates, sleeping pills, minor tranquilizers) 1. Generally depress central nervous system (CNS) 2. May produce some psychological stimulation at low doses 3. Used medically to reduce anxiety and tension to produce sedation and sleep 4. Anticholinergic substances - scopolamine, atropine a. Used as sedatives at low doses b. Large doses may produce excitement, delirium c. Also called <u>general depressants</u> B. Stimulants - amphetamines, speed, diet and pep pills, black beauties, whites, mini whites, caffeine, cocaine 1. Suppress appetite, increase activity, alertness, tension, and general CNS arousal 2. At higher doses, block sleep 3. Tobacco (nicotine) not part of this group a. Symptoms, effects similar b. But considered physiological rather than psychological stimulant C. Hallucinogens 1. <u>Psychedelic</u> (mind-manifesting), <u>hallucinogenic</u> (hallucination producing), <u>psychotomimetic</u> (psychosis imitating), <u>illusionogenic</u> (illusion-producing), <u>psychodysleptic</u> (mind disrupting) a. Sometimes overlapping effects b. Labels emphasize different characteristics 2. These drugs may produce alteration in sensation, mood, consciousness at doses resulting in relatively slight physiological change 3. Examples - LSD, psilocybin, marihuana, ketamine, Angel Dust (PCP) 4. Medical value currently research subject D. Opiate narcotics (opioids) 1. Heroin, morphine, codeine, Demerol, Dilaudid,

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	opium, Percodan 2. Narcotic analgesics - used medically for pain relieving E. Volatile solvents 1. Usually inhaled a. Vapor of glue b. Gasoline c. Lacquer thinner 2. Some called <u>delirants</u>, although this only one effect 3. Many might be considered subgroup of sedatives 4. Others are slightly psychedelic or hallucinogenic 5. Other common inhalants a. Amyl nitrite (Poppers) b. Butyl nitrite (Locker Room, Rush) c. Nitrous oxide (laughing gas - although more properly classified as hallucinogen) F. Nonnarcotic analgesics - aspirin, phenacetin, darvon, talwin 1. Used primarily to reduce aching pain and lower fever 2. May also serve as mild sedative G. Clinical antidepressants (e.g., Tolfranil) 1. To relieve severe depression 2. Rarely used nonmedically since little effect on normal moods H. Major tranquilizers - Thorazine and Mellaril 1. Used to reduce symptoms of severe psychosis 2. Rarely used nonmedically I. Herbal intoxicants - plants designed to be smoked or eaten 1. Most presently legal and promoted as marihuana substitutes 2. 25 major psychoactive drugs in these products 3. Available as herbal cigarettes, teas, capsules

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	4. <u>Valerian</u> a. Contains tranquilizer <u>chatinine</u> b. Relaxing tea or capsules 5. <u>Mormon Tea</u> a. Contains stimulant <u>ephedrine</u> b. Strong stimulating beverage 6. <u>Scotch Broom</u> a. Contains sedative-hypnotic <u>cytisine</u> b. Smoked for relaxation 7. <u>Ginseng Root</u> a. Contains numerous stimulants b. May cause hypertension if used in excess c. Used as panacea for wide variety of medical problems

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
20 Minutes	<u>LECTURE/DISCUSSION: NARCOTIC ANALGESICS ACTIONS AND EFFECTS</u> <u>Abstract</u> The physical effects of opioids such as heroin and morphine are discussed and the medical complications of drug use, such as infections, emboli, and neuroskeletal problems, are described. The symptoms of tolerance and withdrawal are also discussed. • Write the following on Newsprint: - NARCOTIC ANALGESICS - NATURAL OPIOIDS OBTAINED FROM OPIUM - Morphine - Codeine - SEMISYNTHETIC OPIOIDS - Dihydromorphinone (Dilaudid [®]) - Heroin - Methyldihydromorphinone (Metonpon [®]) - SYNTHETIC OPIOIDS - Phenazocine (Prinadol [®]) - Meperidine (Demerol [®]) - Anileridine (Leritine [®]) - Diphenoxylate (with atropine as Lomotil [®]) - Methadone (Dolophine [®]) - Levorphanol (Levo-Dromoran [®]) - SYNTHETIC OPIOIDS WITH LOW POTENCY AND LOW DEPENDENCE LIABILITY - Propoxyphene (Darvon [®]) - Ethoheptazine (Zactane [®]) - Pentazocine (Talwin [®]) - NARCOTIC ANTAGONISTS - Nalorphine (Nalline [®]) - Levallorphan (Lorfan [®]) • Present the following lecturette: I. Opioid effects A. Intravenous injection 1. Produces warm flushing of skin, lower abdomen sensations described as similar to orgasm 2. Called "rush", "kick", "thrill" B. Subcutaneous injection (under skin) 1. Heroin and morphine become indistinguishable 2. Reason - heroin rapidly converted to morphine in body

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	C. Heroin vs Morphine 1. Intravenously injected, addicts can distinguish effects 2. Heroin has greater solubility, thus reaches brain faster and produces effects faster a. Heroin carries morphine to brain faster b. Only nicotine goes faster, may be a reason for difficulty of quitting smoking 3. By weight, heroin 2.5 times as potent as morphine a. Does not produce more euphoria, greater physical dependence, or fewer side effects b. Illicit popularity related more to ease of manufacture and small bulk than superior power D. Opioids unlikely to cause crime directly 1. Physically reduce pain, aggression, sexual drive 2. But crime may be necessary to pay for drugs since cost beyond their legitimate earnings II. Medical complications of opioid use A. Infections from dirty and shared needles (septicemia, endocarditis, hepatitis, tetanus, and pulmonary, cerebral, and subcutaneous abscesses) B. Foreign body emboli C. Granulomata from injecting contaminants D. Variety of neurological, musculoskeletal and other lesions possibly due to hypersensitivity reactions III. Tolerance A. Remarkable degree of tolerance develops to respiratory depressant, analgesic, sedative, emetic, euphoria producing effects of opioids 1. Rate depends on use pattern 2. Frequent use means greater amounts needed for "kick" or to maintain "high" 3. Some addicts build to phenomenally large doses 4. Lethal dose altered (raised) a. Tolerance not absolute b. Always some dose which can produce death from respiratory depression

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	B. Tolerance does not develop equally to all effects 1. Users tolerant to respiratory effects still complain of constricted pupils (miosis) and constipation 2. Cross tolerance between even chemically dissimilar opioids a constant finding 3. Tolerance usually disappears after withdrawal a. Many addicts have fatally overdosed by returning to their "normal" dosage after undergoing withdrawal IV. Withdrawal symptoms and severity depend on specifics of drugs being taken A. Morphine or heroin withdrawal signs noted just before time of next scheduled dose 1. Purposeful behavior reaching a peak 36-72 hours after last dose and then subsiding 2. Crying, runny nose, yawning, sweating 8-12 hours after last dose 3. 12-14 hours after last dose, restless sleep B. Later signs-annorixia, dilated pupils, gooseflesh, restlessness, irritability, tremor C. Peak intensity at 48-72 hours 1. Increasing irritability, insomnia, loss of appetite, violent yawning, severe sneezing, crying or tearing, and nasal inflammation 2. Pronounced weakness and depression 3. Nausea, vomiting, intestinal spasms, diarrhea 4. Heartrate and blood pressure elevated 5. Chilliness alternating with flushing and sweating 6. Gooseflesh a. From pilomotor activity b. Skin resembles plucked turkey - origin of phrase "cold turkey" (abrupt withdrawal without treatment) 7. Abdominal pain, muscle spasms, kicking movements basis for expression "kicking the habit" 8. Other signs of CNS hyperexcitability a. Ejaculation in men b. Orgasm in women

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE																									
20 Minutes	D. Effects of withdrawal 1. Weight loss, dehydration, ketosis, body chemistry disturbances 2. Occasional cardiovascular collapse 3. Administration of a suitable opioid will suppress symptoms 4. Without treatment, symptoms disappear in 7-10 days V. Effect of <u>displacing</u> rather than withdrawing drug A. If drug not withdrawn but replaced with antagonist such as naloxone, withdrawal develops within a few minutes and reaches peak in $\frac{1}{2}$ hour B. Until antagonist withdrawn, symptoms cannot be suppressed even with large doses of previously used opioid																									
	<u>LECTURE/DISCUSSION: GENERAL DEPRESSANTS ACTIONS AND EFFECTS</u> <u>Abstract</u> This lecture describes the effects of general depressants such as alcohol and barbiturates on the Central Nervous System. Effects of such depressants (or "downers") include general depression of the CNS and neurological effects such as thick slurred speech, vertigo, difficulty in walking, and so forth. Chronic barbiturate and alcohol use results in tolerance but not in a significant elevation of the lethal dose. • Write the following on Newsprint:																									
	GENERAL DEPRESSANTS <table> <tr> <td>Ethyl alcohol Sedative-hypnotics</td><td>Minor tranquilizers</td></tr> <tr> <td>Barbiturates</td><td>Meprobamate (Miltown^R; Equanil^R)</td></tr> <tr> <td>Secobarbital (Seconal^R)</td><td>Meprospan^R)</td></tr> <tr> <td>Pentobarbital (Nembutal^R)</td><td>Chlordiazepoxide (Librium^R)</td></tr> <tr> <td>Amobarbital (Amytal^R)</td><td>Diazepam (Valium^R)</td></tr> <tr> <td>Phenobarbital (Luminal^R)</td><td>Oxazepam (Serax^R)</td></tr> <tr> <td>Glutethimide (Doriden^R)</td><td>General anesthetics</td></tr> <tr> <td>Methyprylon (Nodular^R)</td><td>Ether</td></tr> <tr> <td>Chloral hydrate</td><td>Nitrous Oxide</td></tr> <tr> <td>Paraldehyde</td><td>Miscellaneous agents</td></tr> <tr> <td></td><td>Glue</td></tr> <tr> <td></td><td>Paint thinners</td></tr> <tr> <td></td><td>Lacquer thinners</td></tr> </table>	Ethyl alcohol Sedative-hypnotics	Minor tranquilizers	Barbiturates	Meprobamate (Miltown ^R ; Equanil ^R)	Secobarbital (Seconal ^R)	Meprospan ^R)	Pentobarbital (Nembutal ^R)	Chlordiazepoxide (Librium ^R)	Amobarbital (Amytal ^R)	Diazepam (Valium ^R)	Phenobarbital (Luminal ^R)	Oxazepam (Serax ^R)	Glutethimide (Doriden ^R)	General anesthetics	Methyprylon (Nodular ^R)	Ether	Chloral hydrate	Nitrous Oxide	Paraldehyde	Miscellaneous agents		Glue		Paint thinners	
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	Glue																									
	Paint thinners																									
	Lacquer thinners																									

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	• Present the following lecturette: I. Alcohol and barbiturates depress the CNS A. Reason for name "downers" B. At low doses, effects result of depression of reticular system, primitive brain part controlling consciousness and responsible behavior 1. Impulses moving from this system to brain cortex can be exciting or inhibiting 2. Thus, behavior dependent on which path first depressed C. Effects of low doses of alcohol and barbiturates dependent on degree of excitability of CNS at time of use 1. Depends on environmental setting 2. Personality of user II. Acute and chronic effects of mild barbiturate intoxication A. Resemble those of alcohol 1. General sluggishness, difficulty in thinking, slowness of speech, and comprehension, poor memory, faulty judgment, narrowed attention span, emotional lability, exaggeration of basic personality traits 2. Irritability, quarrelsomeness, moroseness 3. Laughing or crying without provocation 4. Untidiness in personal habits, hostile, and paranoid ideas, suicidal tendencies B. Neurological effects of barbiturates 1. Thick slurred speech, nystagmus, diplopia, strabismus, difficulty in accommodation, vertigo, ataxic gait, positive Romberg's sign, hypotonia, dysmetria, decreased superficial reflexes C. Chronic intoxication results both in drug disposition and pharmacodynamic tolerance 1. Lethal dose does not change 2. Thus acute barbiturate or meprobamate poisoning may be superimposed on chronic intoxication at any time D. Similarity between barbiturate withdrawal and that from meprobamate, methaqualone, related drugs

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	1. General depressant withdrawal syndrome for all of them 2. Mild syndrome a. Paroxysmal EEG abnormalities 3. Greater dependence a. Tremulousness, anxiety, weakness, insomnia 4. Severe syndrome a. <u>Grand mal</u> seizures b. Delirium III. Chronic alcohol use A. Chronic use results in increased ability to metabolize alcohol 1. Declines after several weeks of abstinence 2. Abstinent alcoholics and normal individuals metabolize at same rate B. Produces pharmacodynamic tolerance 1. Higher blood concentration necessary to produce intoxication in tolerant than in normal individuals 2. Some alcoholics can perform well with blood alcohol over 200 mg - twice the legal intoxication limit a. Like barbiturate tolerance, no marked elevation of lethal dose b. Acute intoxication with respiratory depression may be superimposed on chronic alcohol intoxication at any time C. Cross tolerance between alcohol and other drugs 1. Due to pharmacodynamic tolerance in the CNS 2. Also due to more rapid metabolism of alcoholics 3. Individuals tolerant to alcohol usually show cross tolerance to general anesthetics and other sedative hypnotics D. Alcohol withdrawal 1. Signs and symptoms similar to barbiturates 2. Three distinct states a. tremulous syndrome b. Alcohol related seizures

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
20 Minutes	c. <u>Delirium tremens</u> d. Much overlapping from one state to another <u>LECTURE/DISCUSSION: STIMULANTS ACTIONS AND EFFECTS</u> <u>Abstract</u> This lecture discusses the uses and effects of such stimulants as amphetamines and cocaine. Both drugs produce feelings of euphoria and increased energy, but cross tolerance does not develop between them. There is little evidence that cocaine use is "worse" than amphetamines since it appears to be a primarily recreational drug. The negative effects of both drugs are also described. • Write the following on newsprint: CNS STIMULANTS <u>Amphetamines</u> Dextroamphetamine (Dexedrine®) Amphetamine (Benzedrine®) Methamphetamine (Methadrine®, Desoxyn®) <u>Cocaine</u> Phenmetrazine (Preludin®) Diethylpropion (Tenuate®, Tepanil®) Methylphenidate (Ritalin®) Nephentermine (Wyamine®) <u>Caffeine</u> <u>Nicotine</u> • Present the following lecturette: I. Amphetamines ("uppers") effects A. Oral administration 1. Elevation of mood, sense of increased energy and alertness, decreased appetite 2. Task performance that has been impaired by fatigue or boredom is improved 3. Some people become anxious, irritable, loquacious 4. Insomnia (for some transient drowsiness) 5. As dose increases toward toxic level, effects are less significant

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	B. Cocaine has similar effects for chronic user 1. Produces feelings of wellbeing 2. Toxic syndrome seems same as amphetamines 3. Animals show similar cocaine and amphetamine behavior 4. Little evidence that cocaine "worse" than amphetamines in terms of its abuse potential or effects a. Chewing of coca leaves common with Indians of Peruvian Andes b. No intense preoccupation with drugs or toxicity c. Smoking of coca paste associated with high degree of psychological dependency and physical effects C. Tolerance 1. Tolerance develops to central effects so dose must be increased a. Some users take several hundred milligrams a day b. Some mild but limited tolerance to cocaine 2. Since amphetamines kill appetite, may cause ketosis 3. Cross tolerance between amphetamine like stimulants but not between amphetamines and cocaine 4. Toxic effects a. Toxic psychosis after weeks or months of use b. Toxic syndrome characterized by 1. Visual, auditory, tactile hallucinations 2. Picking, excoriation of skin, delusions of parasitosis 3. Paranoid ideation, free association 4. Difficult to differentiate from schizophrenia reaction D. Withdrawal 1. For a long time believed that no symptoms other than drug craving, prolonged sleep, general fatigue, depression

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	2. True withdrawal syndrome now recognized a. Prolonged sleep, lassitude, fatigue, hyperphagia, profound depression, suppression, rebound of REM sleep (as waking dreams or hallucinations) II. Cocaine use A. Intoxication achieved by sniffing through the nose 1. Euphoria 2. Stimulation B. Experimentation initiated by curiosity about drug 1. Users feel it is an 'ideal' drug a. <u>Convenience</u> - Minimal bulk, rapid effect, minimal duration, few side effects b. <u>High degree of safety</u> effects of short (30 minutes) duration. C. Viewed by users as exotic drug with appeal from 1. Rarity 2. High price 3. Associations with folk heroes D. Negative effects 1. Recreational users a. Irritability b. Perceptual disturbance c. Nasal problems D. Fatigue 2. Intensified use a. Recreational negative effects noticeable b. Development of toxic psychosis rare because regular users titrate or adjust to circumvent adverse reactions
30 Minutes	<u>LECTURE/DISCUSSION: HALLUCINOGENS (PSYCHEDELICS) ACTIONS AND EFFECTS</u> <u>Abstract</u> Hallucinogens are drugs which produce hallucinations or dream-like, mind wandering states. The theory of action for these drugs suggests they suppress normal memories by inhibiting information flow. In sufficient amounts nearly all drugs (including marijuana) can produce hallucinations. LSD and

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	PCP are the most favored of the hallucinogens currently in use. Their bad effects include fear, panic, and, in some cases, psychotic episodes. Two group discussion exercises help to explain the actions of hallucinogens. • Write the following on Newsprint HALUCINOGENS LSD-25 (lysergic acid diethylamide) Dimethyltryptamine (DMT) Psilocybin Psilocin Phencyclidine (PCP) Diethyltryptamine (DET) Dipropyltryptamine (DPT) Dimethoxyphenylisopropylamine (DOM/STP) Methylenedioxyamphetamine (MDA) • Present the following lecturette: I. <u>Hallucinogens</u> are drugs which produce hallucinations A. From Latin <u>hallucinari</u> - to dream or wander in mind 1. Most drugs may produce hallucinations in suitable doses 2. In pharamacological and psychological terms <u>hallucinogens</u> refer to those drugs which produce perceptual distrubances, mood changes, thought disturbances B. Action of hallucinogens 1. By stimulating the CNS 2. Leads to states of excitation and arousal coupled with functional disorganization of brain part that regulates incoming stimuli 3. Behavioral result is impairment of discrimination between real and unreal stimuli C. Theory of action for hallucinogens assumes that they suppress normal memories by inhibiting flow of information from outside 1. Input of new information inhibits awareness of previous information

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	2. When input decreased, while awareness remain, get hallucinations, dreams, fantasies, images ● <u>Process for Group Discussion:</u> Picture a person in his/her living room, standing at a closed window opposite fireplace and looking out at the sunset. She/he is absorbed by the view of the outside world and does not visualize the interior of the room. As darkness falls outside, however, the images of the objects in the room behind can be seen reflected dimly in the window. With the deepening of darkness, the fire in the fireplace illuminates the room, and the person now sees a vivid reflection of the room, which appears to be outside the window. As the analogy is applied to the perceptual-release theory of hallucinations, the daylight (sensory input) is reduced while the interior illumination (the general level of arousal of the CNS) remains bright, so that images originating within the rooms of the brain may be perceived as though they came from outside the windows of the senses. D. Stages of hallucinations (with all hallucinogens including marihuana) 1. Geometric forms, colors that move about visual field 2. Complex images consisting of recognizable landscapes, scenes, people, familiar objects ● <u>Process for Group Discussion:</u> The first stage can be simulated by simply closing your eyes and lightly rubbing your eyelids, thereby increasing pressure on the eyeball. Many people, after doing this, experience the sensations of lights, colors, or geometric forms. Hallucinogens apparently intensify these perceptions but without the need for closed eyes or increased eye pressure. The second stage can be illustrated by recalling the last time you went swimming at the beach. Chances are you get a mental image or picture of yourself running along the beach and swimming in the ocean. Such images are fictitious, since you couldn't possibly have seen yourself running, but memory imagery often contains fleeting glimpses of oneself. And so it is with the second stage of hallucinations. Many people report seeing scenes of themselves or equally improbable images such as aerial perspectives and underwater views. Hallucinatory imagery, in this sense, is similar to dream imagery, but without the need for sleep—hence the term "waking dreams". II. Effects of the psychedelic state A. Heightened awareness of sensory input 1. Often accompanied by enhanced sense of clarity but diminished control over experience

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	B. Feeling that one part of self is a passive observer - <u>spectator ego</u> C. Environment perceived as novel, beautiful, harmonious D. Attention of user turned inward 1. Everything seems extremely meaningful 2. Sense of truth "seems more significant" E. Diminished capacity to differentiate boundaries of one object from those of another 1. Feelings of disassociation 2. Feelings of union or fusion with objects 3. Feeling of oneness with the universe III. Effects of LSD A. Oral doses as low as 25 Micrograms produce CNS effects in some individuals B. Higher doses (100 micrograms) 1. Sympathomimetic somatic effects a. Increase in blood pressure, tachycardia, hyperreflexia, tremor, nausea, piloerection muscular weakness, increased body temperature 2. 100 microgram doses perceived in few minutes. a. Dizziness, weakness, drowsiness, nausea, paresthesias b. Feeling of inner tension - laughing or crying c. Several feelings can coexist d. Hallucinations e. Synesthesia - overflow from one sense to another 1. Colors seen; sounds heard 2. Subjective time and space altered f. Need for structuring environment to compensate for loss of boundaries and fear of fragmentation g. Shifting mood - gaiety to depression, elation to fear h. Tension and anxiety may mount to panic proportions

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	3. Average trip 5-8 hours a. Effects clear after 12 hours b. Half life of drug in human 3 hours 4. Tolerance a. Develops after 3-4 daily doses b. Sensitivity returns after 3-4 days drug free c. Cross tolerance with LSD, mescaline, psilocybin but not with amphetamines 5. No withdrawal 6. Side effects a. Bad trip - temporary episode of panic b. Flashbacks - recurrences of drug effects- occur most often within a few weeks of initial experience IV. Phencyclidine (PCP) A. Has mixed excitatory, sedative, cataleptoid-anesthetic, hallucinatory properties B. Smoked, ingested, sniffed, injected C. Intoxication marked by tranquilization, euphoria, drunkenness, disassociation, hallucination (tactile and auditory) D. Bad effects 1. Restlessness, anxiety, paranoia, hyperexcitability, irritability, mental confusion, partial amnesia 2. Large doses produce muscle tremors, convulsions, seizures 3. Deaths associated with PCP a. From drowning when user became disoriented in water b. Violent behavior and suicide from acute PCP induced psychotic states E. Effects of PCP 1. Changes in body imagery, perceptual distortions feelings of apathy and estrangement 2. Feelings of estrangement, inability to verbalize, feelings of emptiness 114

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
30 Minutes	3. Reports of difficulty in thinking, poor concentration, preoccupation with death 4. PCP as drug of choice a. Contrary to public opinion, many individuals do choose PCP use b. Such individuals titrate their doses to proper levels c. Unpredictable episodes still occur and latent psychopathology can be revealed <u>LECTURE/DISCUSSION: CANNABIS ACTIONS AND EFFECTS</u> <u>Abstract</u> This lecture discusses <u>cannabis sativa</u> (marihuana) and its uses and effects. The active ingredient in marihuana is delta-9 tetra hydrocannabinol (THC), a chemical with mood-altering effects. Marihuana research shows a variety of unconfirmed effects on smokers, including lung injuries, and chromosome changes. Legal penalties for marihuana use have been reduced in some states to those for civil offenses such as parking violations. No rise in marihuana use has come as a result of decriminalization. • Write the following on newsprint <u>CANNABIS</u> - Marihuana - Hashish - Hashish Oil • Present the following lecturette: I. Marihuana the common name for the hemp plant - <u>Cannabis Sativa</u> A. Source of the drug and its products 1. Referred to as hashish, charas, bhang, ganja, dagga, marihuana 2. Only the female plant yields active ingredients 3. Ingredients concentrated in the flowers B. Uses for hemp (historical) 1. Fibers for textiles and rope 2. Seeds for oil 3. Leaves and flowers smoked for intoxicating effects of the resin they contain

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	C. Names 1. Middle East, North Africa - resin - <u>hashish</u> 2. United States - <u>marihuana</u> refers to any part of the plant or extract II. Chemical makeup, appearance A. Delta-9-tetra hydrocannabinol (THC) 1. Chemical with greatest mood altering effect 2. Leaves and flowers also contain related chemicals B. Appearance 1. Dried flowers and leaves, with or without stems 2. Ranges in color from greenish-brown to gold or dark brown 3. Contains from 0 to 5 percent THC C. Hashish 1. Made by removing resin from leaves and pressing it into cakes or slabs 2. More potent than marihuana - up to 12 percent THC 3. Hashish oil - 50 percent THC a. Pure THC usually not available since expensive to produce and loses potency upon exposure to air b. Substances sold as THC usually PCP III. Cannabis effects and syndromes A. Subjective effects influenced by state of mind, mood, expectations, and circumstances B. Actual effects 1. Need more research on marihuana and driving a. Reports show some sensory impairment 2. Smoking marihuana irritates lung tissue but possibility of causing cancer not known a. One report suggests that marihuana and tobacco combination most carcinogenic 3. Fetal development/chromosome effects a. No substantiated evidence that marihuana harmful to fetal development

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	b. Use of all drugs by pregnant women should be kept to a minimum C. Marihuana research 1. Reproductive Biology Research Foundation report a. Of 20 males studied, 44 percent had lowered testosterone levels b. Means that marihuana smoking could affect development of male features in fetus (pregnant female users) or delay onset of puberty (used by adolescent males) c. These findings still unconfirmed 2. Unconfirmed study shows that marihuana interferes with disease resistance a. Marihuana smokers do not suffer higher disease rates b. Follow up studies have conflicted with original conclusions 3. Long term effects study (Jamaican farm workers) a. No significant physical abnormalities b. No abnormal chromosome damage among offspring D. Psychological affects of marihuana 1. Use of small daily doses has no lasting effect 2. Chronic users may show signs of mental deterioration and abnormal behavior 3. Whether prolonged, high dosage use a <u>symptom</u> or <u>cause</u> of psychological or emotional problem a. Any drug can be abused b. But marihuana abuse would say more about the state of the abuser than the danger of the drug 4. Consistently seen effects a. Feelings of exhilaration and relaxation b. Minor increase in heart rate c. Hilarity, drowsiness, dry mouth, bloodshot eyes d. Higher doses may cause confusion e. Some users may experience rapid mood change depression, panic

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
10 Minutes	f. Reassurance and environment can aid persons having unpleasant experience 5. No short or long term hazards E. Long term use 1. May result in psychological dependence or habituation chronic lethargy, lung damage 2. Proportion of users suffering such effects not known 3. Relationship of marihuana use to use of other drugs not known IV. Legal restrictions on marihuana use A. Some states have reduced penalty for simple possession 1. <u>Reasons</u>: reduce court overloads, since harsh penalties don't discourage use, a mild intoxicant and penalties for its use should reflect actual danger it has 2. <u>Decriminalization</u>: means reduction in penalty to level of civil offense such as parking violation a. One ounce or less - \$100 fine b. Differs from legalization because that eliminates penalties completely 3. Effects of decriminalization a. No rise in use b. Apparently, nonusers don't use drugs because they don't want to, not because it's illegal <u>SUMMARY OF MODULE IV</u> • State the following: I. Science fiction, idea of drug future (Robert Silverberg) A. Shift from drugs as bad to drugs as good 1. Huxley - <u>Brave New World</u> <u>Soma</u> an instrument of repression 2. Huxley - <u>Island</u> <u>Moksha</u> "the reality-revealer, truth and beauty pill"

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	B. Future drug uses 1. Drugs will be used as euphorics, mind expanders, panaceas, mind controllers, intelligence enhancers, sensation enhancers, reality testers, mind injurers, means of communication 2. Envisioned as therapy for physical and social problems caused by technology 3. Writers predict psychedelic wars, euphoric and escapist journeys from reality, new medicinal drugs discovered on alien planets, use of drugs in outer space for hibernation and longevity END OF MODULE

MODULE V: UNDERSTANDING THE PHENOMENON OF SUBSTANCE ABUSE

PERSPECTIVE

The purpose of this module is to provide information on and to give participants new ways to understand the etiology of drug abuse. Generating motives and factors, patterns and cycles, and possible consequences of drug use will be examined and discussed.

CONTENTS

- Overview of Module V (10 minutes)
- Lecture/Discussion: Motives for Drug Use (25 minutes)
- Lecture/Discussion: The Disease Model of Alcoholism (50 minutes)
- Lecture/Discussion: Generating Factors of Drug Abuse (20 minutes)
- Lecture/Discussion: Patterns and Consequences of Use (35 minutes)
- Lecture/Discussion: Vicious Circles (20 minutes)
- Lecture/Discussion: Narcotic Addiction and Alcoholism (30 minutes)
- Lecture/Illustration: Tension Levels (35 minutes)
- Structured Experience: Maintaining Drug Use Patterns (40 minutes)
- Summary (5 minutes)

TOTAL TIME

4 hours, 30 minutes

OBJECTIVES

1. Identify at least three reasons for using chemicals.
2. Identify one way in which motives for use change as drug use patterns develop.
3. Identify three factors which serve to maintain drug abuse patterns.
4. Identify at least three specific consequences of continued substance abuse.
5. Identify at least three commonalities of heroin and alcohol.
6. Identify at least one criterion for labeling alcoholism a disease.

MATERIALS REQUIRED

- Table 1: Levels of Experience, Motives, and Drug Abuse Patterns
- Table 1: Stages in Process of Drug Use
- Disease of Alcoholism Chart
- Table 2: Some shifts in Characteristics of Stages of Drug Use
- Table 3: Operating Factors in the Etiology of the Process of Drug Use
- Illustrations: Vicious Circles

- Alcohol and Heroin Chart
- Reactions to Sedative Hypnotics (Particularly Alcohol) Chart
- Average Tension Level Chart
- Tension Changes Due to Alcohol Consumption Chart
- The Buildup Effects of Additional Alcohol Consumption Chart
- Hair-of-the-Dog Effect Chart
- Effects of Higher Alcohol Dosages Chart
- Tension Levels Produced by 48 Hours of High Level Alcohol Consumption Chart
- Stan Abuse Comic Strip
- Maintaining Drug Use Patterns: Case Study Sheets
- Large Group Meeting Space
- Markers, Tape and Newsprint

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
15 minutes	<u>OVERVIEW OF MODULE V</u> • Review the objectives of Module V with the whole group • Introduce the module as follows : - In Module II drug use was considered from a number of perspectives which implied differing motivations on the part of the user. The drug user could be considered a deviant law breaker. The drug user could be considered a "victim" succumbing to externally caused pressure. The drug user could be considered one who suffers some internally derived need - Module III discussed the historical use of psycho-active substances pointing out that some people and cultures have always used drugs to some extent apparently for a variety of reasons - reasons which cut across sociocultural profiles - Module IV focused on the actions of drugs in terms of what they provide the user in terms of physiological and psychological effects - The question remains as to why people use drugs; why they choose to use a particular drug, why some choose to stop, and why some continue despite the onset of deleterious effects So called "mysteries" involving drug use could include the question of why a large percentage of soldiers who had used heroin on a regular basis in Vietnam stopped using it upon return to the United States and the riddle of why one person can consume alcohol on a social, periodic basis and another will consume that same substance continuously to the point of alcoholic blackout, liver damage, etc.
25 minutes	<u>LECTURE/DISCUSSION: MOTIVES FOR SUBSTANCE USE</u> • Present a brief lecture based on the resource papers for this module highlighting the following points : • Many theorists subscribe to a sociocultural perspective on drug use causation - These theorists maintain that among the most potent causes of substance use and abuse are: 1. General social and political disruption (erosion of confidence in Government, confusion over social goals, ecological uncertainty, etc.); 2. Breakdown of the family unit (more broken homes, family mobility, parental absence from the home, etc.);

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	3. Influence of the media (especially the advertising of chemicals); 4. Economic imbalance (existence of poverty, ethno-racial economic discrimination, affluence leading to boredom, etc.); 5. Rigidity of educational institutions (maladaptive characteristics of public education, boredom in schools, etc.); 6. Rapid technologic change; 7. Proliferation of value and belief systems; fluidity in standards of morality; and 8. Increase in leisure time. ● One could argue from this point of view that only massive sociocultural, economic and political changes could minimize the cause of drug abuse. ● This position, although having long range merit, does not address the relative stability of conditions in the recent past nor does it clearly account for historically documented drug use under conditions of relative prosperity and social contentment or nonuse under adverse conditions. ● Most discussions of the possible direct causes of drug use and drug using behavior focus on the part drugs have in meeting unfulfilled needs and aspirations of the individual. ● One author (Cohen, 1971) suggests that - people take drugs because they want to - drugs give relative satisfaction in some areas of a person's life; some people take drugs to "feel better" and to get "high." - people experiment with different drugs in the hope they will feel better on some level ● Other authors (Dohner, 1972a) suggest that most people who use drugs are not "sick" or "ignorant" - the majority of drug abusers have learned to expect "better living through chemistry" - drugs are used to find a new or different level of experience ● The immediate reasons for possible drug dependency vary among different individuals leading to different choices of drugs and different patterns of use.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE						
30 minutes	<u>LECTURE/DISCUSSION: LEVELS OF EXPERIENCE, MOTIVES AND DRUG ABUSE PATTERNS</u> • Make sure each participant has turned to Table One: Levels of Experience, Motives and Drug Abuse Patterns on page 211 in the Resource Manual. Write the following on a flipchart: <table border="1"> <tr> <td>Level of Experience</td> <td>Corresponding</td> <td>Most</td> </tr> <tr> <td>Type of Gratification</td> <td>Motives, Needs, Aspirations</td> <td>Probable Drugs of Abuse</td> </tr> </table> (Instead of discussing the table in the Resource Manual an alternative method of presentation would be to provide copies of the table with the most probable drugs of abuse category blank and lead a brainstorming session with participants suggesting the specific drugs.) • State the following: - One way of looking at specific motives involves their categorization by the different levels of experience which are sought and the types of gratification most appealing to potential drug dependers • Table 1 is included as a frame of reference for presenting relevant motives • Each section encompasses one type of experiential level, a kind of gratification which might be sought • Then a number of corresponding individual motives, needs and aspirations are listed, all of which may be directly related to drug use • After each motive is a listing of the types of drugs most probably used to respond to that motive • This table is not totally comprehensive nor should the categories be taken to be mutually exclusive • Briefly present the information contained in Table 1. Allow for participant discussion regarding their agreement or disagreement with the matching of motives and needs with the probable drugs of abuse. • Ask if there are any questions about the material presented thus far.	Level of Experience	Corresponding	Most	Type of Gratification	Motives, Needs, Aspirations	Probable Drugs of Abuse
Level of Experience	Corresponding	Most					
Type of Gratification	Motives, Needs, Aspirations	Probable Drugs of Abuse					
50 minutes	<u>LECTURE/DISCUSSION: THE DISEASE MODEL OF ALCOHOLISM</u> • State the following: - A third theory of causation of drug use and abuse which differs from the two discussed above is the predisposition school of thought most clearly represented by the disease model of alcoholism - This lecture will present the model of alcoholism						

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TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	as a disease by addressing the AMA criteria for labeling diseases, conducting a comparative analysis of heart disease and alcoholism in terms of risk factors and preventability, and covering characteristics of alcoholism in terms of risk factors, susceptibility, common alcoholic characteristics, and predisposing physical, cultural, and environmental factors. • Present the following lecturette based on the resource paper "The Disease Model of Alcoholism" using the following content outline. I. Alcoholism meets AMA criteria to be categorized as a disease: A. Known etiology B. Known progression of symptoms that get worse over time C. Known outcome (death) II. Two major philosophical differences regarding the etiology criterion: A. Old view of alcoholism as a psychological pathology B. Newer view as a physiological state 1. Research to establish biochemical differences that characterize alcoholics 2. Search for a genetic X-factor III. Comparison with Heart Disease A. Three types of risk factors for both 1. inherited or physiological 2. social/environmental 3. psychological B. Risk factors for heart disease 1. Physiological factors a. heart disease in the family prior to age 60 b. elevated cholesterol and triglycerides c. high blood pressure d. low level of exercise e. high achievement milieus 2. Psychological factors a. occupational stress

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	b. competition c. aggressiveness C. Possibility of preventive action 1. Foreknowledge of risk 2. Change in diet and exercise 3. Elimination of stress IV. Genetic/physiological factors in alcoholism A. Correlation between diagnosed alcoholics and their biological parents B. Poor eating habits - Roger Williams' theory on nutrition C. High tolerance 1. "Hollow-leg" syndrome 2. Not only to alcohol but to all depressants, e.g., anesthesia, even in childhood 3. No ill effects during social drinking years, e.g., no hangovers or sickness 4. Comparison with Orientals who have natural buildups of acetaldehyde even in infancy (Antabuse effect, although, naturally) 5. Memory association with a pleasant effect V. Social/Environmental factors in alcoholism A. Family models - Extremes of heavy drinking and total abstinence B. Best environments 1. Early introduction 2. Context of festive occasions 3. Association with meals 4. Cultural consistency 5. Positive cultural attitudes toward drinking and negative attitudes toward drunkenness C. Harmful factors in our culture 1. High mobility 2. Peer pressures toward drinking

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	3. Macho image association with drinking 4. Group pressure at social gatherings VI. Psychological aspects of alcoholism A. No psychological factors established as characteristic B. Apparent similarities among alcoholics 1. Common defense mechanisms only C. Benefits perceived from alcohol 1. Lessens discomfort 2. Weakens inhibitions VII. Interaction of physiological factors: Dr. Gordon Bell A. Group A (most alcoholics) 1. Heightened pleasure 2. No ill effects B. Group B (some alcoholics) 1. Heightened pleasure 2. Bad aftereffects C. Group C (no alcoholics) 1. No heightened pleasure 2. Immediate discomfort 3. Bad aftereffects

TIME/MATERIALS

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• State the following:

- One way of considering types or species of alcoholism is according to this primarily theoretical, academic model

(NOTE: you may use the Disease of Alcoholism Chart on page 162 to illustrate the Gamma Alcoholism species.)

- A. Alpha Alcoholism: Represents a purely psychological continual dependence or reliance upon the effect of alcohol to relieve bodily or emotional pain. The drinking is "undisciplined" in the sense that it contravenes such rules as society tacitly agrees upon, such as time, occasion, locale, amount and effect of drinking, but does not lead to "loss of control or inability to abstain." It may lead to all problems. No serious withdrawal, no progression.

Relief of discomfort implies underlying illness. Alcoholism - a symptom. This species cannot be regarded as an illness per se. May develop into gamma alcoholism.

- B. Beta Alcoholism: That species of alcoholism in which such alcoholic complications as polyneuropathy, gastritis, cirrhosis of liver may occur, without either physical or psychological dependence on alcohol. The incentive to the heavy drinking that leads to such complications may be the customs of certain social groups in conjunction with poor nutritional habits. The damage in this instance is of course the nutritional deficiency diseases, but economic problems, lowered productivity and shortened life span may also occur. No withdrawal symptoms.

- C. Gamma Alcoholism: Means that species of alcoholism in which 1) acquired increase in tissue tolerance to alcohol, 2) adaptive cell metabolism, 3) withdrawal symptoms and "craving" i.e., physical dependence and, 4) loss of control are involved. In gamma alcoholism progression from psychological to physical dependence and marked behavior changes.

This species causes the greatest and most serious problems.

Loss of control impairs interpersonal relations to highest degree. Damage to health and financial and social standing are also more prominent than in any other species of alcoholism. Gamma alcoholism is apparently the predominating species in the United States and Canada as well as other Anglo Saxon countries. This is kind of alcoholic A.A. recognizes to the exclusion of others.

- D. Delta Alcoholism: Shows first three characteristics of gamma alcoholism as well as a less marked form of the fourth characteristic to abstain. Can't go on water wagon. Can control intake. "French alcoholic."

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
20 minutes	Delta alcoholic not seen in A.A. because he does not go through the distressive social and psychological experiences of the gamma alcoholic and few behavior changes of gamma alcoholic. <u>E. Other Species</u> 1. Epsilon alcoholism - periodic problem drinker, least known species. 2. Pseudo periodic alcoholism - A A alcoholic, gamma alcoholic who slips every 3, 6 or 12 months and goes back. 3. Excessive weekend or spree drinker 4. Occasional drinker who causes accidents Alpha and Beta not diseases per se. Gamma alcoholism is a disease per se because there are the four characteristics mentioned above which represent physiopathological changes analogous to drug dependence and psychopathological changes which differ from those of any possible prealcoholic psychopathology. Delta alcoholism, the same except no psychological changes. Gamma alcoholism regarded same as narcotic and barbiturate dependence because of craving and loss of control because they constitute true disease processes and which, by pharmacological standards, could be regarded as addictions. <u>LECTURE/DISCUSSION: GENERATING FACTORS OF DRUG ABUSE</u> • Write the following on newsprint: <u>GENERATING FACTORS</u> A. Pharmacological effects of the drug B. Personal factors of the user 1. Feelings of discomfort 2. Intense, unpleasant feelings 3. Inability to master intense, unpleasant feelings C. Social meaning and value of a drug and drug-taking D. Environmental influences on the user • State the following: - Thus far, extensive research has failed to show one single cause that initiates the process of pathological use of drugs. On the contrary, both research findings and clinical work have made it clear that a complexity of causes and conditions give rise to the drug taking process. - We can summarize these factors as follows:

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	A. The pharmacological effects of the drug We may roughly locate the various drugs on a scale. On one side are the drugs with a strong addictive action (e.g., heroin, morphine, palfium); on the other are those to which an addictive power scarcely can be ascribed (e.g., aspirin, chlorpromazine, laxatives, or even petrol or vinegar). The addictive property of a drug depends on the somatic and psychic influence it exercises. In what way these are connected with the chemical structure is largely unknown. All of the addictive drugs have an influence on the feeling or mode of experience of the user. For practical reasons we can classify them as sedating, stimulating, and psychedelic effects. In all cases, the drug is taken for its desired action. What in a given case is regarded as desired depends on the following factors: B. The personal factors of the user. In this dimension, too, we can make a scale with at its extremes persons who have a strong disposition toward excessive use and addiction, and those who are scarcely susceptible to it. The former type can be seen to incline toward a dysfunctional use even of non or hardly addictive drugs. Often with these persons a triad of features can be found: 1. Feelings of discomfort, tension, and displeasure can arise easily in them, in case of mild frustrations, or even "spontaneously;" 2. These unpleasant feelings are very intense, or nearly unbearable; 3. The absence of opportunities to master, sublimate, and channel such feelings. The drug may be used to seek relief from the state of tension. Those people not disposed toward abuse include those in our culture who are impervious to alcohol, tobacco, tea, coffee, sweets, etc. The personal factors should not be considered to form an invariable and stable system. Age, for example, is an important modifying factor; during puberty and adolescence, the risk appears to be increased. Physical and psychiatric diseases with a debilitating influence should also be kept in mind as predisposing factors. C. The social meaning and value of a drug and of drug taking.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	Along this dimension, factors like the drug's being accepted in the culture or being considered alien to it play a role (the acceptance or rejection of alcohol or opiates in some Eastern and Western cultures). Furthermore: 1) the ritualization of the use of the drug, and the social norms, habits, and sanctions governing it, including the legal regulations and jurisdiction; 2) the aura of sensation and thrill; 3) the significance of a drug as a symbol of sturdy, competitive, aggressive masculinity; 4) or of a noncommittal, non-aggressive attitude and mode of behavior; 5) the function of a drug or of using drugs as a symbol of differences between groups, classes, and generations (to the group the user is the insider and the nonuser is the outsider, while, conversely the user is the outsider in society in general); 6) the function of a drug or of drug taking as a symbol of a progressive, nonauthoritarian attitude. The social meaning of a drug and of drug taking is not only important as an incentive to take drugs, but also as a factor that can have an important influence on the effect of a drug. Here lies a connection with the general pharmacological problem of the placebo effect, and of the difference between reactors and nonreactors. D. The environmental influence on the user. Influences can be divided into positive factors (leading to a favorable reaction of the person) and negative ones (causing too great, too small, or inadequate stress). The same social situation and influence may be experienced by one person as a positive stimulus, and by another as a heavy burden he may try to get rid of by using drugs. • Write the following on newsprint, with the identical structure displayed below: Drug Use as Human Behavior 1. Drug use varies from individual to individual, time to time, group to group, culture to culture, generation to generation. 2. No simple relationships exist between cause and effects. 3. Behavior occurs in a social and cultural context. 4. Beliefs and perceptions motivate behavior. 5. The behavior of drug user serves some physical, psychological, or social function. • State the following: • When the drug user is recognized as a person and his integrity is respected, his growth and development

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
5 minutes 35 minutes	can be fostered and he can be helped in dealing with his special problems. - When drug use is recognized as human behavior, then, as behavior, it may be studied with the help of all of the principles that characterize human behavior generally, and with the help of the accumulated wisdom of the social and behavioral sciences. - It varies from individual to individual, from time to time in the same individual, from group to group, culture to culture and generation to generation. Different individuals use different drugs in different amounts at different times for different reasons in different social and cultural contexts with different results. - There are no simple relationships between cause and effect. As with all behavior which is multiply determined, patterns of drug use are influenced by many factors: family, school, church, community, peer group, and media. The relative importance of each will depend on the community's definition of its role and on its ability to relate to the needs of its young people. - Behavior always occurs in a social and cultural context, and it is often this context that gives it meaning. A society's or a group's definition of, and response to, drug use is often more important in determining the problems associated with drug use than the drug use itself. - Beliefs and perceptions, regardless of whether they are judged as real or acceptable by others, motivate behavior. - Unless a given behavior serves some physical, psychological, or social function it will not persist. If the behavior of drug use persists, evidently it serves one or more functions and fulfills needs. - Ask group members if they have any questions about the material presented thus far. If so, respond accordingly. <u>LECTURE/DISCUSSION: PATTERNS OF USE AND CONSEQUENCES OF SUBSTANCE ABUSE</u> - State the following: - Thus far we have discussed some of the theories of causation of drug use - what motivates people to use drugs initially and what factors are involved when some of those people continue use on a regular or chronic basis. - It is important to consider that many times, especially in cases involving substances which can evoke physiological or psychological dependence, the initiating factors for use are gradually superseded by perpetuating factors which are quite different.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	● In this section of the module the patterns of drug use will be examined further particularly in terms of how the patterns themselves may be seen as consequences, or "vicious circles." ● Concepts discussed earlier, such as "spectrum of use" will be amplified and placed in context ● To put drug use patterns in perspective, it is necessary to make at least some gross distinctions. These are usually made on the basis of either type of substance used or of different levels of frequency of use. ● Apart from the type of drug used, these differences in the frequency of use are influenced by the personality structure, social factors (including treatment), and probably also by the duration of the state of dependence. In some cases dependence is consistent with a more or less normal way of life; in others it is not. In the latter case, the clinical term "addiction" may be used. It should be noted that this definition of "dependence" and "addiction" does not include nor exclude physiological mechanisms. The terms are used in a descriptive way, to characterize behavior or ways of living. ● When we use the term <i>drug addict</i> we need to keep in mind that we are observing a state of dependence as a behavioral syndrome that is characterized by the fact that the person concerned cannot live without the drug. ● <i>Write the following on newsprint:</i> 4 STAGES LEADING TO ADDICTION 1. Contact 2. Experimentation - Socially tolerated use - Integrated mode of use 3. Excessive use - Incidental excessive - Periodical excessive 4. Addiction ● <i>State the following:</i> ● It is useful not to look at dependence, including addiction, as a separate entity only, but to keep in mind that it must be regarded as the final stage of a process. ● We may roughly sketch the natural history of the use of a drug's leading to dependence as follows:

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	1. The first stage is the <i>contact</i> with the drug, which may take place in a medical or a nonmedical setting. After one or more contacts the process may come to a halt, or it may develop into the second stage, that of <i>experimentation</i>. 2. The stage of <i>experimentation</i> may assume different forms as to intensity and duration, depending on several factors that will be discussed later. After some time has elapsed, the second stage may come to an end, or it may develop into a stage of <i>socially tolerated use</i> that (from a psychiatric point of view) may be called an integrated mode of use; or it may lead to the stage of excessive use. The majority of experimenters do not continue to use, and the majority of those who do continue, do so on a casual or occasional basis. The drug is used only when readily available and only in a social context where it is being used. Use is usually spontaneous rather than planned. The major reasons for continued occasional use are primarily social—not too different from those for adults' causal use of alcohol. It facilitates social interaction. It feels good. It is fun. Most casual or occasional users do not become regular users. As an experience and an activity it is not very important when compared to other experiences and activities. 3. The stage of <i>excessive use</i> often carries several risks and damages that may be of a physical, psychical, social (interpersonal), economic, legal, moral, etc., nature. What is to be regarded as a risk or a damage depends largely on the prevailing social habits and customs, on the economic and historical situation. The psychiatrist is inclined to speak of <i>excessive use</i> when there is the threat of an impairment of social, psychological, or physical functioning. He could label this stage of the drug use process as excessive if actual damage can be demonstrated as being related to the drug habit. • When use becomes <i>excessive</i> the concept of psychological dependence is invoked. Such dependence merely means that the individual is unhappy when the drug or the opportunity to use it is not available, and will go out of his way to seek the drug and the opportunity to use it. The reasons for <i>excessive use</i> are more diverse, more central to the personality of the user than in <i>experimental</i> or <i>socially tolerated</i> use and more related to the pharmacological action of a particular drug, whether it is a stimulant, a depressant, an analgesic, or a substance that changes perceptions of self and environment. • Only a small minority of users become <i>excessive users</i>, just as only a small minority of users of alcohol become alcoholics. Although <i>excessive use</i> usually implies extremely high frequency of use, it actually covers a range of frequencies. The central factor in <i>excessive use</i> is the degree to which use dominates

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the life of the individual. When major time and thought and energy are devoted to getting the drug, taking the drug, discussing the effects of the drug, associating almost exclusively with others who use the drug, use is considered excessive. When this occurs, the individual can be considered *psychologically dependent* on the drug or, as is increasingly the case, on several drugs rather than a specific drug. *Psychological dependence currently is considered more important than true physiological dependence as the critical factor in most excessive drug use.*

4. In a percentage of cases, *excessive use* can develop into the syndrome of *addiction*, which is a more or less terminal state. On the other hand, *stopping the excessive use, or a return to integrated use, can occur.*

- Write the following on newsprint, using the identical structure displayed below.

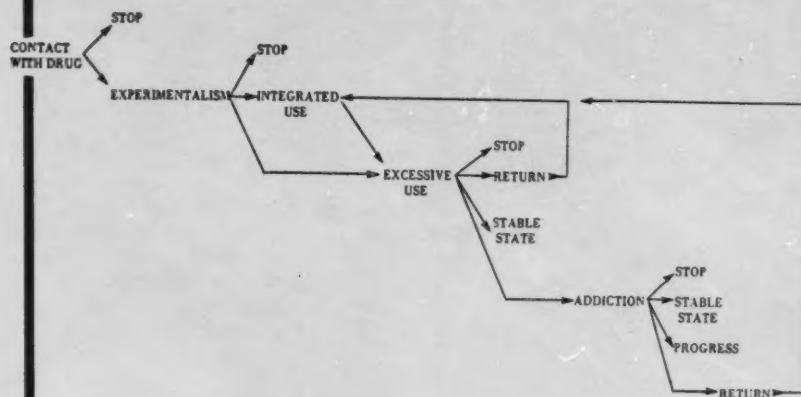


TABLE 1. STAGES IN PROCESS OF DRUG USE

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
5 minutes	● <i>State the following :</i> If we looked at the stages in the process of drug use it would look like this: Contact with the drug Stop Experimentalism Stop Integrated Use Excessive Use Stop Return Stable State Addiction Stop Stable State Progress Return NOTE: <i>Point to each item as you say the item.</i> ● <i>Ask group members if they have questions; respond accordingly.</i> ● <i>Write the following on newsprint:</i> ADDICTION CHARACTERISTICS 1. Damaging to the individual 2. Relatively autonomous 3. Addiction syndrome is self perpetuating ● <i>State the following:</i> ● <i>Addiction, which is the extreme form of dependence and which may be considered an illness, is a syndrome showing three main features:</i> 1. It is damaging to the individual. 2. It is relatively autonomous. By this we mean that, whatever complex interplay of factors may have led to the phases of excessive use and addiction, once the boundary has been passed, a relatively stable state has come into being. That state is addiction, which is mainly independent of primary generating causes and conditions. For treatment this means that in the majority of

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE												
	cases merely removing the initiating factors is not sufficient. Special measures aiming at treating the addiction syndrome as such must be taken. 3. The addiction syndrome is self perpetuating. Spontaneous recovery is exceptional. If no help is offered, there is a tendency to further deterioration. The courses the process can take in the individual case, the successive stages, and the final state show great variety, depending on the drug involved, the personality structure of the user, and the social context. • Write the following on newsprint with the identical structure displayed below. SOME SHIFTS IN CHARACTERISTICS OF STAGES OF DRUG USE <table> <tr> <th>EARLIER PHASES (CONTACT, EXPERIMENTATION)</th><th>LATER PHASES (EXCESSIVE USE, ADDICTION)</th></tr> <tr> <td>More Freedom</td><td>Lack of Freedom</td></tr> <tr> <td>Less Risks and Damage</td><td>More Damage</td></tr> <tr> <td>Abuse Possible</td><td>Abuse Present</td></tr> <tr> <td>No Illness</td><td>State of Illness</td></tr> <tr> <td>Operating Factors Linear</td><td>Vicious Circles</td></tr> </table> • State the following: During the development of dependence several changes in characteristics of the developmental stages of drug use occur. • Describe the changes and shifts by stating the following: • In the earlier phases (i.e., contact, experimentation) we see more freedom from the drug, less risks and damage to the individual drug user. There is still the potential for possible abuse of the drug by the individual. There is virtually no illness associated with the drug user. Operating factors are linear. In other words, the drug is used only when available readily and is used only in a social context. Use is spontaneous rather than planned. The major reasons for continued use are primarily social. Use facilitates social interaction; it feels good; it is fun. As indicated by the chart, most people in the earlier phases do not become regular users. Drug taking is not very important when compared to other experiences and activities in the person's life. • However, during the later phases (i.e., excessive use, addiction) there is a lack of individual freedom from the drug. More damage is done to the individual. Abuse not only is possible, it is present. There is a state of illness. The person is engaged in a vicious circle.	EARLIER PHASES (CONTACT, EXPERIMENTATION)	LATER PHASES (EXCESSIVE USE, ADDICTION)	More Freedom	Lack of Freedom	Less Risks and Damage	More Damage	Abuse Possible	Abuse Present	No Illness	State of Illness	Operating Factors Linear	Vicious Circles
EARLIER PHASES (CONTACT, EXPERIMENTATION)	LATER PHASES (EXCESSIVE USE, ADDICTION)												
More Freedom	Lack of Freedom												
Less Risks and Damage	More Damage												
Abuse Possible	Abuse Present												
No Illness	State of Illness												
Operating Factors Linear	Vicious Circles												

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	● In other words, the person probably devotes a lot of time, thought, and energy to getting the drug, taking the drug, discussing the effects of the drug, associating almost exclusively with others who use the drug. The person is considered psychologically dependent on the drug, or, as is increasingly the case, on several drugs (polydrug use) rather than one specific drug. HE IS SAID TO BE ADDICTED. ● Write the following on newsprint, with the structure indicated below. <pre> graph TD A[Use of Drug] --> B[Metabolic Changes (i.e., Tolerance, Withdrawal Syndrome)] B --> C[Increase of Need] C --> A </pre> PHARMACOLOGICAL VICIOUS CIRCLE ● TRAINER'S NOTE: The following vicious circle illustrations are adaptations of the illustrations in Van Dijk's article; the family vicious circle was designed by the course development team to illustrate another pattern/consequence of drug use. You may use these adaptations or the original Van Dijk circles. Both sets are contained in the Resource Manual, page

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
20 minutes	<u>LECTURE: VICIOUS CIRCLES</u> • <i>State the following:</i> • There is as yet no adequate explanation for this remarkable feature of addiction. However, there are strong indications that an important pathogenic part is played by the mechanism of vicious circles, in which a cause generates a result that in its turn maintains or reinforces the initial cause. In addition, we may distinguish four vicious circles. • Pharmacological investigations have shown that the repeated use of drugs may cause a change in the metabolism of a person. This change may manifest itself in the phenomenon of tolerance, (after prolonged use, an increase of the dose is needed to attain the same effect) and the withdrawal syndrome (a sudden interruption may cause unpleasant and even serious physical and psychological signs and symptoms). • In some types of dependence, the persistent need for the drug and the inclination to increase the dose may be explained on account of these phenomena. Continuation of the use, however, maintains the metabolic change, which in its turn is responsible for the need to use the drug again. Cause and effect influence each other by means of pharmacological mechanisms. This is the reason why we speak of a <i>pharmacological vicious circle</i>, as illustrated by the chart. • <i>Write the following on newsprint, with the structure indicated.</i> <pre> graph TD A[Use of Drug] --> B[Reduction in Judgment] B --> C[Inability to associate consequences and actions] C --> D[Decrease of Ego-strength] D --> A </pre> EGO WEAKENING VICIOUS CIRCLE

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
5 minutes	• State the following: • In some cases the quantitatively and qualitatively excessive use of a drug may have a direct damaging influence on those psychological functions that form the basis for regulation and integration on the behavioral level. • The outcome is a weakening of the strength of the ego. This means that the personal psychical powers to regulate and control the use are reduced. This, in its turn, implies that the motives leading to the use of the drug get the opportunity to assert themselves more easily. Instant gratification and a tendency toward the pleasure principle is involved. This is known as the <i>ego-weakening vicious circle</i>, as indicated by the chart. • Write the following on newsprint in the following manner, with the structure indicated below. <pre> graph TD A["Social Context of Use of Drug"] -- "Social Level Individual Level" --> B["Social Sequelae (Tension, Conflicts, Dropping Out)"] B --> C["Movement to a more comfortable context"] C --> D["(Increase of) Identification with Social Role of 'Being an Addict'"] D --> E["Increase of Need"] E --> A </pre> SOCIAL VICIOUS CIRCLE

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	• <i>State the following:</i> • This circular process is based on the fact that drug addiction has social consequences, which in their turn, reinforce the use of drugs. The social sequelae may be described as a dysfunction and finally, a disintegration within the groups the addict is (or was) functioning in. • This process has harmful effects on the addict. • We may only mention the reproaches of the spouse and other members of the family, the quarrels arising, the disdain and withdrawal of friends and acquaintances, the tensions and conflicts in the occupational sphere and, finally, the dropping out from society. • This isolation and rejection engender in the subject negative feelings, which foster an attitude of "let oneself go into the state of being an addict." This means a fixation of the role behavior that goes with it, and a reinforcement of the identification with a drug using subculture. • <i>Write the following on newsprint:</i> <pre> graph TD A[Family Problem] --> B[United family response to problem] B --> C[Family stress temporarily reduced] C --> D[Tendency to rely on drug crisis to stabilize family] D --> A </pre> • <i>State the following:</i> FAMILY VICIOUS CIRCLE • This circular process is based on the use of drugs within the family structure as a response to unresolved family problems. The response on the part of the family is to focus not on the underlying reason for drug use, but rather on the use itself as a problem • The family unites to respond to this identified "problem" and temporarily relieves the stress • An unconscious tendency develops to continue to "come together" to deal with a symptom rather than the underlying problem causing the symptom. • The drug user is "scapegoated" at the same time his situation is subtly reinforced as a means to family system stability

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
30 minutes	NOTE : 1. In some drugs (e.g., alcohol) all vicious circles mentioned are present; whereas in others, they are not. 2. The original pharmacological, psychological, and social factors that give rise to the vicious circles are by no means restricted to the state of addiction only. They may already be demonstrated in the earlier stages of the process of drug use. What we can see, however, is that the more the process moves to the stage of excessive use, the more the generating factors are becoming circular. This shift from a linear to a circular mechanism is connected with a developing disequilibrium between the operating factor on the one hand, and the capacity to keep up with this operating factor or its effects on the other. Finally, when a shift has taken place from linear to circular and when the quantitative influence of the circuits has risen to a critical level, the addictive state has been attained and will be maintained. 3. In this progress from more linear to more circular action, the factors mentioned do not work separately. In earlier stages, they may either cooperate and intensify, or conversely, counterbalance and reduce each other. In the later phases, they mostly reinforce each other, which explains the relative autonomy and the self-perpetuating nature of addiction. 4. An example of the fact that the factors involved may counterbalance each other may be found in the therapeutic field. It is often possible in the process of treatment to switch over a heroin addict to methadone and to keep the patient on a stable dose of it by supportive psychic and social measures. In some cases, the patients themselves try to decrease their dosage. Whereas, in a nonmedical setting, methadone gives rise to addiction with increasing doses in most cases. Here we see that social and personal factors are able to reduce the pharmacological vicious circle. • Ask group members if they have any questions about the material presented thus far. If so, respond accordingly.
	LECTURE: NARCOTIC ADDICTION AND ALCOHOLISM • Introduce the lecture as follows: Earlier modules have stressed the need for accurate definitions of substance abuse terminology. Understanding of three concepts—tolerance, physical dependence—should establish a clearer understanding of substance dependence. Generally, substances most frequently associated with dependence are those with pain killing potential. Pain of any kind—social, psychological, or physical—produces stress, tension, and anxiety in the individual. Pain killers work by suppressing pain, by altering the ability to respond to pain, or by reducing the tension and/or anxiety caused by pain. Most pain killing drugs do not

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	eliminate the source of pain. The user takes the drug to relieve discomfort and to make the pain more bearable. ● <i>State the following:</i> ● Dependence on alcohol or other general depressants (such as barbiturates and meprobamate) is markedly more difficult to produce than heroin addiction. Once established, however, those dependencies become far more hazardous to the individual. ● During severe withdrawal from such depressants, grand mal seizures and severe psychosis may occur. Even among patients under intensive care, there is a relatively high incidence of mortality. On the other hand, heroin abstinence, although extremely uncomfortable, rarely results in death. ● Addiction to either alcohol or to narcotics will cause similar metabolic changes in the body. ● When alcohol or narcotics first enter the body, they upset natural functioning of cells. If either drug is used regularly, the physiological processes adapt to its presence and eventually begin to function normally. When use of the substance is discontinued, cells, having adapted to presence of the substance, again function abnormally. The user experiences discomfort until either more of the substance is taken, or his cells can readapt to absence of the substance. ● Once the body processes return to normal, the user may still experience psychological effects (and some psychosomatic dysfunctions) that are as real as the physical problems induced by the substances. Any user who wants to abstain permanently must develop nonchemical resources for coping with stress and tension. ● Here, the alcohol user encounters additional problems not experienced by the narcotics user. Narcotics are illegal and socially unacceptable. If the user changes his life style and associations by removing himself from the drug subculture, most of the pressure to use narcotics is eliminated. In contrast, alcohol use is legal, socially acceptable, and frequently expected—with the result that the user attempting to abstain is faced with both continuing temptation and social pressures to keep on drinking. ● In terms of incidence of use, complications resulting from acute overdose, long term effects on the individual's physical and mental state, and ultimate cost to society, there is no close second to alcohol. ● Heroin, divorced from its emotional overtones, has proven pharmacologic and medicinal benefits. It is an excellent suppressant of diarrhea and cough. It is a highly effective short acting pain reliever.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	● Considering solely the personal costs of drinking problems, the price is high. The life expectancy of alcoholic drinkers is shorter by 10 to 12 years than that of the general public. Their mortality rate is at least two and one-half times greater, with a high incidence of violent deaths. ● Alcoholism appears as the cause of death on more than 13,000 death certificates issued each year. Undoubtedly, alcohol and its abuse in fact contribute to many deaths which are attributed to other causes. ● Effects of alcoholism are not felt by the drinker alone. Families, employers and society as a whole are all harmed by the alcoholic's behavior, and all have a stake in helping prevent the disease from becoming more severe. ● If one considers the ill effects of drinking as it affects even just the families of problem drinkers, at least 36 million Americans can be seen as victims of alcohol abuse. Unhappy marriages, broken homes, desertion, divorce, impoverished families, and deprived or displaced children are all part of the problem. The cost to public and private assistance agencies for support of families disabled by alcohol problems amounts to many millions of dollars each year. ● Ask the participants to locate the Alcohol and Heroin Chart in the Resource Manual, page 275. ● State the following: ● The two types of painkilling drugs that have aroused the greatest social concern are narcotics (primarily heroin) and alcohol. There are both striking parallels between the substances and essential differences. ● Consider the following parallels: 1. Both substances are formed naturally. Alcohol is a product of fermentation, occurring in the making of wine, beer, cider, etc. Opium, the base for most narcotics, is obtained from a milky substance contained in the unripe seeds of the poppy plant, <i>papaver somniferum</i>. 2. Both can be used as a general anesthetic, because both depress the functions of the central nervous system. Heroin depresses respiration by its depressant action on the central nervous system, and death may result from medullary paralysis. 3. Alcohol belongs in the class with anesthetic drugs, both in its chemical composition and in its effect upon the physiology. By combining with the fatty tissues of the body as well as the brain

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	cells, like ether or chloroform, it produces changes that are anesthetic in character. During the administration of an anesthetic, the individual passes through the induction stage and then into activity, when the controls are released. The same results follow ingestion of alcohol over a period of time. As with other anesthetic agents, there is eventually a period of unconsciousness. If an anesthetic agent is beyond safety, the vital centers of respiration and circulation can be paralyzed. 4. Both can be used regularly without addiction. A study indicated that heroin users can use heroin two or three times per week for many years without experiencing tolerance or withdrawal. Another study indicated that there is a broad range of reactions to heroin. NOTE : The finding that heroin addiction is far from inevitable was confirmed in another way by psychiatrist Norman E. Zinberg and researcher Richard C. Jacobson. Through ads in the underground press and by personal contacts, they found 54 people, in their late teens to mid-fifties, whom they believed to be using heroin only occasionally. Some used heroin very irregularly, others only on special occasions, still others as often as every Saturday night. In contrast to confirmed addicts (who shoot up several times a day) these users could go without heroin for a week or more. They believed very definitely that they could become hooked, but they had not increased their frequency of use for more than a year and in most instances for several years. Many actually were decreasing their use, usually because they feared addiction or arrest. The White House's Special Action for Drug Abuse Prevention commissioned sociologist Lee N. Robins of Washington University in St. Louis, to find out what became of Vietnam addicts. Conventional programs attempting to "cure" addicts are influenced heavily by law enforcement policies that classify addicts as criminals. Such programs seldom help more than 20 percent of their clients to stop using heroin. Yet Robins discovered that the cure rate for a cross section of GI addicts after eight to ten months of civilian life was dramatically higher--more than 90 percent. Most of the ex-addicts surveyed said they knew how and where to get heroin if they wanted it. But only 8 percent of the veterans who had been addicted in Vietnam admitted they still used opiates regularly. New urine tests confirmed the abstiners' claims. Furthermore, many actual opiate users who had not been detected by the original urine tests had since left heroin behind, even without special treatment.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	<i>Millions of people drink to the point of intoxication regularly without experiencing tolerance or withdrawal.</i> <i>For 1970, the projected total number of drinkers in the United States 15 years of age and over was 95 million.</i> <i>If we accept reliable estimates that about nine million people in this country are alcoholic and problem drinkers, then the average drinker with no alcohol related problems actually drinks much less than the national average of 3.93 gallons of alcohol. Thus, as surveys confirm, the Nation had millions of occasional and very moderate drinkers (NIDA - HSM-42-73-77).</i> ● The most significant differences between narcotics and alcohol include: 1. Side effects: Pure narcotics (opiates) are generally efficient painkillers with few destructive side effects. Alcohol is a far less efficient painkiller, and produces many destructive side effects. 2. Degenerative effects: Use of pure opiate causes little, if any, short term or long term degeneration of body organs and tissues. 3. Contamination: It is almost impossible to purchase pure narcotics on the street. Because they come via an illegal supply chain, they are usually cut with other substances many times before reaching the user. Since opiates cannot be purchased legally the addict is forced to purchase an uncontrolled product of dangerously variable concentration and often containing poisonous adulterants (Chein, 1964). Because alcohol is legally produced and distributed, its purity is generally controlled. 4. Withdrawal: Withdrawal from narcotics rarely produces convulsions or death. Normally, withdrawal from heroin takes approximately 72 hours, and produces symptoms similar to those that accompany acute influenza. Alcohol withdrawal frequently produces both convulsions and death. Withdrawal from alcohol usually takes two or more weeks and is accompanied by more severe symptoms, notably delirium tremens (D.T.'s) and convulsions. Alcohol withdrawal must be carefully regulated by physicians.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	The onset of heroin withdrawal symptoms begins six to eight hours after the last "fix." Symptoms produced are similar to a bad case of the flu: runny nose, stomach cramps, diarrhea, vomiting, muscle cramps, shaking chills, or profuse sweating, "gooseflesh" skin, insomnia, and general irritability or jitteriness. The maximum severity of symptoms develops within 24 to 72 hours after the last use of heroin, with the more dramatic symptoms subsiding in five to seven days, even without treatment. More subtle withdrawal symptoms, however (such as irritability and difficulty with sleeping), may last much longer. Methadone, meperidine (Demerol^R), and other narcotics can produce similar withdrawal symptoms, but differ primarily in time, course, and severity (for example, methadone withdrawal symptoms are more prolonged but more mild than those of heroin withdrawal). Although the physiological basis of these withdrawal symptoms is well established and is primarily subcortical in origin, psychological factors modify to a great extent how the symptoms are perceived and interpreted.
10 minutes	• Ask the group if they have questions about the material presented thus far. If so, respond accordingly.
35 minutes	<u>LECTURE: TENSION LEVELS</u> • State the following: • In order for us to understand substance dependence, we need to understand the physiological aspects of substance dependence, and their relation to individual tension levels. In order to assist you in understanding what happens to an individual's tension level, there are charts in the <i>Resource Manual</i>, starting on page ____. • The charts are illustrations of condensed material taken from an article that appeared in the <i>Maryland State Medical Journal</i>, April 1970. The article was written by Dr. Stanley F. Gitlow. • Also, these charts are illustrations from a transcript of a lecture delivered (February 24-25 and October 27-28, 1966) for the Alcoholism Interagency Training Project of the Community Council of Greater New York. That state program for social workers was supported by the National Institute for Mental Health. • Ask the participants to locate the chart entitled, <i>Reactions to Sedative-Hypnotics (Particularly Alcohol)</i>, in the <i>Resource Manual</i>, page ____. • State the following: • These charts will attempt to illustrate the physiological aspects of substance dependence, and their relation to individual tension levels.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	• Various reactions to consumption of sedative-hypnotics (particularly alcohol) are illustrated in the chart entitled, <i>Reactions to Sedative-Hypnotics (Particularly Alcohol)</i>. • A normal tension range is defined by Dr. Gitlow as the mean of average tension level for adults. Chart 1 illustrates the variations in reactions to alcohol consumption from death due to anxiety or tension, from death due to convulsions. • Ask the participants to turn to Chart #2, entitled, <i>Average Tension Level</i>. • State the following: • This chart indicates that tension levels increase and decrease due to daily events, varying with each individual. The average tension level (ATL) constitutes a range of tensions that the individual experiences, unaltered by the influence of substances (drugs). • Ask the participants to turn to Chart #3, entitled, <i>Tension Changes Due to Alcohol Consumption</i>. • State the following: • When alcohol is ingested it depresses the brain, and it diminishes the psychomotor activity level. The psychomotor activity level may be measured by the amount of anxiety or tension noted. • Diminished psychomotor activity level means relief from anxiety and whatever it is that may bother the individual: insomnia, tension, job, or family pressures. • When the person's blood alcohol rises, his psychomotor activity level goes down; he is relieved, relaxed, less anxious, less frightened, less worried than before. • But as soon as the blood alcohol level starts to fall, this sedative effect diminishes, and even a big dose, such as a couple of jiggers, wears off very rapidly after the second hour. • If that were all, there is a distinct possibility that we might not have the disease called alcoholism because under those circumstances, an individual could drink to get relief, his anxiety level would diminish, the drink would wear off, and he would come back to where he was before. But there is another effect that acts in the opposite direction. • The second effect is to increase the psychomotor activity level. This increase takes place immediately after taking a drink, but is not immediately felt because the change is less intense than the sedative effect. This (latter) lasts two or three hours, while the opposite or agitating effect usually lasts for about 12 hours after one big drink.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	• Therefore, as the short term sedative effect wears off, the other effect of alcohol—increased psychomotor activity—becomes apparent. No one in this world can get a sedative effect from any known drug without it being followed by an agitating effect which wears off more slowly (Gitlow, 1970). • The first effect of reduced tension level resulting from sedative hypnotic consumption is illustrated in Chart 3: <i>Tension Changes Due to Alcohol Consumption</i> (see notation S¹). • The second effect on an increase in tension level is illustrated in Chart 3, notation S². • Ask the participants to turn to Chart #4 entitled, <i>The Build-Up Effects of Additional Alcohol Consumption</i> • State the following: • Near the end of the second hour after the original drink, when the sedative effect wears off and the agitating effect starts to gather momentum, the individual is more tense than he was before he drank at all. • And so he will have another drink and the anxiety level will diminish again, but in about two hours, the psychomotor activity level will rise again, higher than ever. • This cycle of increased tension, drinking, short term sedative effect, longer term agitating effect, higher tension, drinking again, can go on for some time. • Eventually, however, a point is reached when decreasing the psychomotor activity level to a really low state is difficult, no matter how much alcohol is taken. This is because the agitating effects from all of the previous drinks are cumulative. • This effect is illustrated in Chart #4, entitled, <i>The Build Up Effects of Additional Alcohol Consumption</i>. Look at the anxious-aggressive level and the reduced inhibition level. • This agitating effect occurs in experimental animals and in humans; it is inherent in the pharmacology of the drug. You don't have to be an alcoholic in order to experience it. Anyone gets this effect if he drinks enough. • Ask the participants to turn to Chart # 5, entitled, <i>Hair-of-the-Dog-Effect</i>. • State the following: • After an evening of heavy social drinking, you may have a hangover, the common name given to this condition of after agitation. A drink (hair-of-the-dog) will relieve this because it provides sedation to counteract the agitation of last night's drinking.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	● Of course, the morning drink is going to be followed by its own agitation for another 12 hours, but the drink may get you through a trying period until you begin to get a decrease in the agitating effects of the heavy drinking from the night before. ● This effect is illustrated in Chart #5, entitled, <i>Hair-of-the-dog Effect</i>. Look at the Hangover, Anxious, and ATL levels. ● Ask participants to turn to Chart # 6, entitled, <i>Effects of Higher Alcohol Dosages</i>. ● State the following: ● This chart indicates the effects of higher dosages of alcohol. Look at the loss of coordination control at five to seven hours after drinking and how long it takes to get back to a normal state or level of psychomotor activity. ● If, however, an individual has been drinking heavily over a long period of time it may take many days for his psychomotor activity level to return to its normal state (Gitlow, 1970). ● Ask participants to turn to Chart # 7, entitled, <i>Tension Levels Produced by Hours of High Level Alcohol Consumption</i>. ● State the following: ● This chart indicates the tension levels produced by 48 hours of high level alcohol consumption. Look at the delerium tremens level. ● The charts emphasize the relationship between sedative-hypnotics (particularly alcohol) and tension levels. The charts establish a physiological basis for the effects in a normal life situation. Please remember that even though alcohol was utilized to illustrate the effect of depressants, Chart #1 can be used to illustrate other substance use, such as stimulants. ● I would like to illustrate the reality of tension level effects in life situations through the use of a cartoon character named "Stan Abuse." ● Ask the participants to locate in the Resource Manual, page 283, a comic strip entitled, "Stan Abuse." ● Read aloud the following: Let us imagine a man—call him "Stan Abuse"—who is 34 years old, married, has children, and is employed in a middle level management position. He is comfortable, but motivated to advance in his career. On a Friday afternoon, he stops after work for a drink with some friends. After a couple of drinks, he excuses himself and goes home to shower and get ready to go out to dinner with his wife. He has a quick drink before leaving for the restaurant. . .

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	• <i>Turn the page.</i> Where he and his wife wait 30 minutes in the cocktail lounge. A round of drinks is served. The food is excellent. Stan and his wife enjoy a good wine with dinner, and order a fine liqueur to top off the meal. • <i>Turn the page.</i> They visit a night club and have a few more drinks. Our friend becomes quite merry, and the couple stops off at a friend's place for a nightcap. It's O.K., because it's Friday and Stan knows he can sleep late on Saturday morning. • <i>Turn the page.</i> But what actually happens on Saturday morning? Our previous discussion of physiological facts suggests that, because the subject of our story drank over an eight-hour period, he may indeed sleep peacefully for a while. But his tension level will gradually rise throughout the early morning hours, until it passes the normal level. By about 7 a.m., Stan's tension level will be high enough so that footsteps on the stairway or a door slamming anywhere in the house will wake him. For the next 36 to 48 hours, his tension level will continue to be higher than normal. If he doesn't drink anything more he should reach a normal tension level by early Monday morning. Because he is unable to sleep, he decides to get up. His head is aching and he feels bad. Never mind, a Bloody Mary will fix that. Now he's up and about and feeling better. He gets hot and dusty doing yard work, so he has a beer or two to quench his thirst. • <i>Turn the page.</i> Then a neighbor drops in; that calls for ham sandwiches and another beer. Saturday evening a friend stops by, so drinks are served to show the host's hospitality. Stan finishes off a beer while watching television. Saturday's alcohol, when added to Friday's alcohol, means that it will be late Tuesday before Stan's tension level becomes normal. • <i>Turn the page.</i> Sunday, Mr. Abuse spends a quiet day on the lake with the family, so he only drinks a six-pack of beer. By Sunday night, he is doomed to suffer serious

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	aftereffects until Wednesday afternoon. And he only got high once. • <i>Turn the page.</i> When he wakes up Monday morning, Stan's tension level is elevated well above normal, but it is not yet high enough for him to notice. A typical American, the first thing he does is drink a cup of coffee to get started. He will probably have another cup before he leaves home, and still another cup of coffee every 90 minutes for the rest of the day.¹ The caffeine increases the stress on Stan's system and temporarily elevates the activity level. Once he is up and dressed, the subject joins the flow of commuter traffic, thereby adding more stress and tension to those produced by the coffee and alcohol. Having reached his office, Mr. Abuse will wrestle with the volume of work typical of the first of the week. He takes three or four coffee breaks, attends a staff meeting, and participates in another commuter rush at 5:00 p.m. By 5:30, his tension level is high. He feels like taking off his shoes, having a drink, and relaxing. Possibly he will have a beer or two during the evening. Stan repeats Monday's pattern all week. When Friday comes again, he is already going to experience an increased level of tension through Sunday afternoon. Add another weekend of increased alcohol consumption, then another typical week, and the subject has acquired from a week to ten day's elevated tension, resulting from the aftereffects of drinking. If nothing changes, this tensions' level will remain more or less constant throughout the rest of his adult life. At this point in Stan's life, the increased tension level is present, but not very apparent. As long as his home life remains happy, work goes well, and his health is excellent, the tension patterns may not become significant. But suppose something goes wrong? • <i>Turn the page.</i> If a day comes when his sales slip and he becomes irritable at home because of pressures from work, problems will begin to develop. One Monday, as pressure mounts, Stan might be chastized at a staff meeting because of his poor sales performance. He returns to his desk to work on his reports, but finds he can't concentrate.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	He gets a cup of coffee and again tries to concentrate, but he feels too anxious to work. He decides to make a few contacts but that doesn't go well because he is too tense. He considers going home but there's tension there, too. He finally drops by a bar for a few drinks and then goes home. • Turn the page. The next day Stan arrives at work determined to improve his performance. But yesterday's drinks, coupled with the residual tension, make that impossible. The ensuing frustration may result in his having a drink at lunch, and a few more in the evening. At this point, what Stan Abuse really needs is to spend several days without any drinking, so his tension level can drop to a more reasonable level. He also needs to cut back on his caffeine consumption; that would also help him to relax. Instead, since he has no understanding of the cycle in which he is caught, he perpetuates it. He finally decides to visit a busy doctor in a nearby office. Stan explains that circumstances temporarily combined to produce increased tension and pressure at work. He convinces the doctor that he is suffering from tension and anxiety—a minor, temporary incapacitation. • Turn the page. The doctor decides to prescribe a minor tranquilizer. When the patient hears the word minor he assumes that it means small or insignificant. This seems just the right remedy for a not too serious problem. The word "minor" as used by the doctor doesn't mean "minor" as the patient understands it. In the case of tranquilizers, "minor" means that the tranquilizer won't destroy all of the patient's muscle control. It will reduce tension and anxiety, but will leave the patient functional. <i>NOTE: The term "minor tranquilizer," although commonly applied, has contributed to the misunderstanding. Drs. Klein and Davis, in Diagnosis and Drug Treatment of Psychiatric Disorders, state:</i> <i>The irretrievably ingrained term "minor tranquilizer" is most unfortunate for it implies that these agents act like major tranquilizers but to a lesser degree; one might expect large doses of the minor tranquilizers to have approximately the same clinical effect as small doses of the major tranquilizers and to be effective in the same range of clinical conditions. Actually, this is not the case; the minor tranquilizers</i>

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	<i>closely resemble sedative hypnotic drugs such as the benzodiazepines than major tranquilizers such as the phenothiazines.</i> <i>The phrase "minor tranquilizer" is a medical term the doctor shouldn't share with his patient unless he carefully explains its meaning.</i> The physician should have said: "I'm about to prescribe to you one of the most difficult to manage prescriptions known to us; it produces, as an aftereffect, exactly the problem I am giving it to you to relieve. "If we are not careful, you will join the millions of other persons on this medication who are given prescriptions to counteract the effects of previous prescriptions. I can only give you this medication if you discontinue all use of alcohol, stop using caffeine, and alter your work regime and life style to reduce the real sources of tension. Then, if you don't improve in the next two or three weeks, we'll have to take you off this medication and try something else." But the patient receives neither the clear information nor the careful warning that is in order. Without this essential lecture, the patient will get up the next morning and take the tranquilizer, believing it will reduce his tension level. Indeed, for six to eight hours, the tranquilizer will work effectively. When tension again begins to increase around 4:00 p.m., patient Stan Abuse will, as usual, have martinis to help him unwind. These will get him through until about 1 or 2 a.m., when again he will pass through the normal tension range, approaching the increased tension zone. The next morning, he will wake up more tense than before because of the secondary effects of yesterday's relaxation by drinking. So he takes more medication. Soon Stan begins reaching his increased tension zone at about 1 or 2 a.m. He wakes up and has insomnia for three or four hours. He returns to his doctor and demands to know what is happening: "I feel good all day because of the medication you gave me," he says, "but I can't sleep at night." If the doctor says, "That's all right, I'll give you a barbiturate to get you to sleep," the cycle is complete. Now at about 10 p.m., when his martinis are wearing off and the aftereffects of his tranquilizers are starting to boost his tension, Stan will take a barbiturate to make himself sleep. This won't wear off until about 7 a.m., at which time his tension level is again rising.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
40 minutes	The tranquilizer he took is producing more tension. The alcohol he drank is producing more tension. The coffee he drank to help him wake up is producing more tension. Now he is really tense and needs his tranquilizer more than ever. This story illustrates a tragic and unnecessary life pattern common to millions of Americans. • Ask the group if they have any questions about the material presented thus far. If so, respond accordingly. • State the following: • People using sedative hypnotics should abstain from all their effects for a period of time. They should attempt to reach the point where they can find out how much tension is real and requires treatment, and how much is simply the aftereffect of substance use. • In this module, some of the unique properties of sedative hypnotics that contribute to unnecessary dependency on those drugs have been discussed. There are other characteristics that probably should be covered, but many of those have been reviewed thoroughly in other works. • The facts highlighted here have come to light only recently. They have caused problems even when many of the social, psychological, and cultural patterns commonly associated with drug dependence are not clearly present.
	<u>STRUCTURED EXERCISE: IDENTIFYING PATTERNS OF SUBSTANCE ABUSE</u> • Give the following instructions to participants: • In this module we have discussed various approaches to determining the generating or motivating factors which lead to drug use. • We have also examined the kinds of patterns which may develop in various stages of use from regular or integrated to compulsive or excessive. • In this exercise we examine the drug using behaviors of several people and attempt to answer these questions: 1. What were the discernible generating/motivating factors involved in their initial drug use? 2. How have these original factors been superseded by other factors emerging from continued use? 3. What kinds of vicious circles or other patterns/consequences can you identify?

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
5 minutes	● Break into groups of four and you will be assigned two cases to study. ● Your group will have 25 minutes to answer the questions for both cases you have worked on. ● After small groups have accomplished this task choose a spokesperson to report out. In processing this activity point out differences and similarities between diagnoses of the same case by different groups. Summarize by stating the following: ● What does all this mean? Is it merely an intellectual exercise in futility? Is the problem so complex that paralysis rather than constructive action necessarily must follow? The answer to both questions is "no." the complexities of drugs and drug effects, of drug use and drug users, are paralyzing only if one seeks simple, universal answers to problems posed by what is essentially highly variable human behavior sharing the characteristics of all human behavior. Parents and teachers cope with all kinds of behavior daily. The fact that a drug is involved does not nullify all that is known about living and learning. ● Summarize the Module. END OF MODULE

Table One
Levels of Experience, Motives and Drug Abuse Patterns

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Most Probable Drugs of Abuse
A. Physical:		
Pertaining to the general feeling of physical well-being, and experience of the body.	1) Physical relaxation	1) Alcohol, tranquilizers (e.g., Librium, Valium, some over-the-counter sedatives, etc.), cannabis (marihuana and hashish)
	2) Relief from pain or anticipated prevention of sickness	2) Physician prescribed drugs, over-the-counter (OTC) drugs
	3) Increased physical energy, avoidance of fatigue	3) Stimulants (e.g., amphetamines, cocaine)
B. Sensory:		
Pertaining to the enhancement, exaggeration, or intensification of the physical senses.	1) Intensification/enrichment of sensory input (e.g., sound, sight, touch, etc.)	1) Psychedelics (e.g., LSD, Mescaline, Psilocybin, STP, etc.), cannabis, occasionally others
	2) Enhancement of sexual experience	2) Alcohol, cannabis, occasionally others
C. Emotional:		
Pertaining to psychological and emotional experience, especially that which occurs within a personality; includes those internal feelings set off by the environment.	1) Psychological escape or release from emotional agony	1) Any, especially narcotics and alcohol
	2) Reduction of normal tension, anxiety, conflict	2) Alcohol, barbiturates, OTC sedatives, tranquilizers, cannabis

TABLE ONE (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Most Probable Drugs of Abuse
C. Emotional: (Continued)		
	3) Emotional relaxation	3) Alcohol, tranquilizers, cannabis
	4) Mood alteration	4) Stimulants, alcohol, cannabis
	5) Desire for psychological/emotional insight	5) Psychedelics, cannabis
	6) Avoidance of decision-making; pressure avoidance	6) Any
	7) Desire for privacy, aloneness	7) Alcohol, narcotics
	8) Rebellion; assertion of independence or defiance of authority	8) Any, especially illicit or forbidden substances
	9) Intensification of personal courage	9) Stimulants, alcohol
	10) Increase in self-esteem	10) Any, especially alcohol, stimulants and cannabis
D. Interpersonal:		
Pertaining to interpersonal relations, acceptance in groups, feelings of communication among individuals, opposite sex relationships, etc.	1) Gain in peer recognition, as in "showing off"	1) Any
	2) Gain in peer acceptance, as in behaving according to "peer pressure"	2) Any

TABLE ONE (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Most Probable Drugs of Abuse
D. Interpersonal: (Continued)		
	3) Relaxation of interpersonal inhibition; facilitation of social interaction	3) Any, especially alcohol and cannabis
	4) Reduction of anxiety-provoking intimacy	4) Narcotics, cannabis, etc.
	5) Reduction in barriers to communication; also solution of interpersonal problems	5) Psychedelics, cannabis, stimulants
	6) Escape/release from family difficulties	6) Any
	7) Escape/release from feelings of loneliness, alienation	7) Any
	8) Establishment of feeling of "community" or belonging with actual or reference group	8) Any
E. Mental-Intellectual:		
Pertaining to the experience of mental and intellectual processes, such as thoughts, ideas, problem-solving, etc.	1) Reduction of boredom	1) Any
	2) Curiosity	2) Any
	3) Enhancement of learning processes	3) Stimulants, sometimes psychedelics
	4) Problem-solving, especially technical	4) Stimulants, sometimes psychedelics

TABLE ONE (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Most Probable Drugs of Abuse
E. Mental-Intellectual: (Continued)		
	5) Research on one-self, one's cognitive processes	5) Psychedelics, cannabis
	6) Mental fatigue avoidance, as in studying	6) Stimulants
F. Creative-Aesthetic:		
Pertaining to artistic creativity, the performance or aesthetic appreciation or experience of creative works or artistic phenomena.	1) Increase in creative performance ability	1) Cannabis, stimulants, psychedelics
	2) Increase in enjoyment of artistic productions	2) Cannabis, alcohol, psychedelics
	3) Creation of subjective states of fantasy or imagination	3) Psychedelics, cannabis
G. Experiential:		
Pertaining to generalized personal experience of new, unusual or intensified states of experience or consciousness. Usually somewhat difficult to label.	1) Desire for "pure pleasure," "fun," recreation	1) Any
	2) Nonspecific changes in consciousness or awareness; e.g., any "high," intoxication for its own sake, desire for a change, any change, in experience	2) Any
	3) Unusual distortion of the sensorium, "freaky" perception and associated experience	3) Psychedelics, cannabis, sometimes stimulants or barbiturates

TABLE ONE (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Most Probable Drugs of Abuse
G. Experiential: (Continued)	4) Engagement—the need to be personally and totally involved in the moment, whatever the experience; counteracting apathy and ennui	4) Any, except perhaps tranquilizers
H. Stylistic: Pertaining to styles of behaviors and attitudes, especially cognitive styles, cultural styles and life-styles.	1) Need for identification through <i>imitation</i> , by youth of adults, by adults of youth, from media and subcultural "hero" figures; peer imitation	1) Any
	2) Automatic chemical reliance, — i.e., the culturally infused style of substance ingestion for any perceived deficiency	2) Any
	3) Desire for <i>immediacy</i> of achievement; impatience, intolerance of delay of gratification	3) Any; tranquilizers, volatile chemicals, OTC drugs less so

TABLE ONE (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Most Probable Drugs of Abuse
I. Social-Political: Pertaining to experiences generated by identification or involvement with social causes or political movements; also reaction to social and political inertia or change.	1) Identification with anti-establishment forces 2) Rebellion against disliked laws 3) Overcoming discouragement or desperation with social-political future 4) Induced change in mass consciousness, sometimes by attempted disruption of "the system"	1) Cannabis, psychedelics; sometimes any illicit substance 2) Cannabis, etc. 3) Any 4) Psychedelics
J. Philosophical: (General and Personal) Pertaining to the experience of a guiding philosophy of life, an explanation of the universe; also personal identity, including goals, purpose, and values.	1) Search for purpose and meaning in life 2) Organization of experience into a belief structure 3) Search for personal identity 4) Creation or change in values and philosophical lifestyle	1) Psychedelics, cannabis, others depending on peer group 2) Cannabis, psychedelics, stimulants 3) Psychedelics, cannabis (directly); other drugs (indirectly) 4) Any, especially cannabis and psychedelics

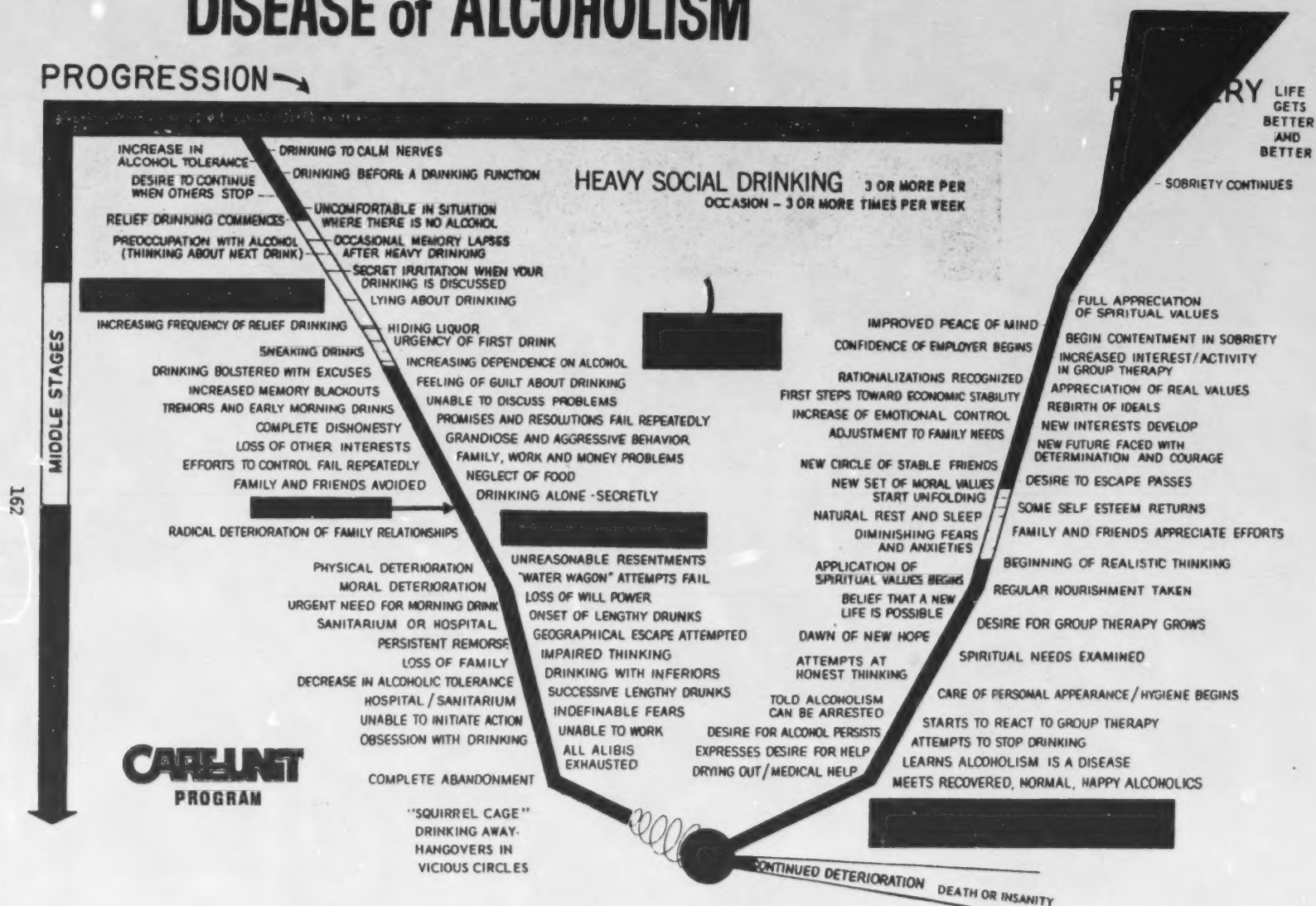
TABLE ONE (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Most Probable Drugs of Abuse
J. Philosophical: (General and Personal) (Continued)	5) Overcoming frustration from lack of meaningful vocation and work	5) Any
K. Spiritual-Mystical: Pertaining to experience with religious, spiritual or mystical characteristics, including intangible internal experiences with spiritual overtones or labeling.	1) Desire for intense spiritual experience, often labeled "higher levels of consciousness" 2) Desire for specific mystical states, e.g., "enlightenment," communication with God, etc. 3) Overcoming frustration with organized religion 4) Augmentation of unorthodox spiritual methodology, e.g., yoga, meditation	1) Psychedelics, cannabis 2) Psychedelics, cannabis 3) Psychedelics, cannabis 4) Psychedelics, cannabis
L. Miscellaneous: Pertaining to combinations of above levels: factors difficult to categorize in one schema.	1) Need for risk-taking, danger 2) Need for adventure, exploration 3) "Vacuum phenomenon," or "What else is there to do?"	1) Any, especially more dangerous drugs 2) Any 3) Any

TABLE ONE (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Most Probable Drugs of Abuse
L. Miscellaneous: (Continued)	4) Economic profit 5) Combination of motives, needs, aspirations—none of which individually would produce drug abuse, but does in a cluster 6) Need to react to extreme mental or physical discomfort; e.g., as in the maintenance of narcotic addiction, or in extreme psychological pain and/or confusion	4) Any illicit substance 5) Any 6) Any

PROGRESSION →



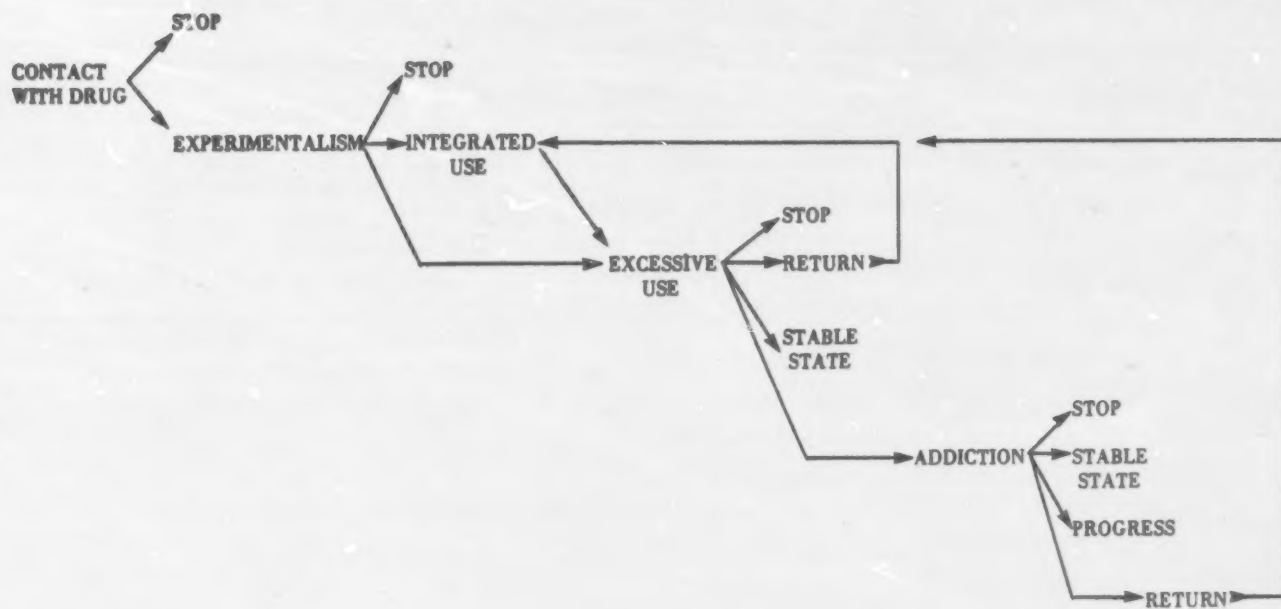


TABLE 1. STAGES IN PROCESS OF DRUG USE

EARLIER PHASES (CONTACT, EXPERIMENTATION)	LATER PHASES (EXCESSIVE USE, ADDICTION)
More Freedom	Lack of Freedom
Less Risks and Damage	More Damage
Abuse Possible	Abuse Present
No Illness	State of Illness
Operating Factors Linear	Vicious Circles

TABLE 2. SOME SHIFTS IN CHARACTERISTICS OF STAGES OF DRUG USE

1. PHARMACOLOGICAL PROPERTIES:

Strongly addictive drugs
(e.g., morphine, heroin)

Non-addictive drugs
(e.g., aspirin, laxatives, vinegar)

2. PERSONAL FACTORS:

Strongly disposition
to excessive use

No disposition
to excessive use

3. SOCIAL MEANING AND VALUE:

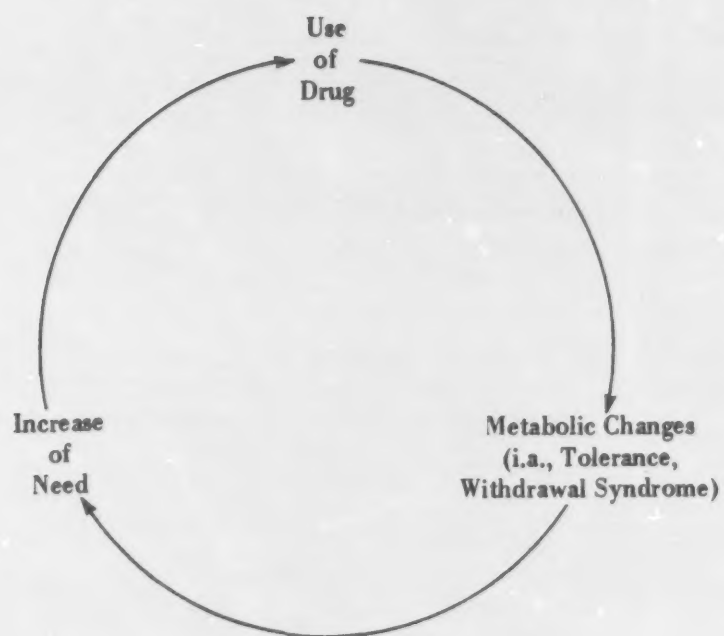
Drug accepted or rejected, ritualization,
social norms and sanctions (including legal
regulations, police actions and jurisdiction),
symbolic significance

4. ENVIRONMENTAL INFLUENCES:

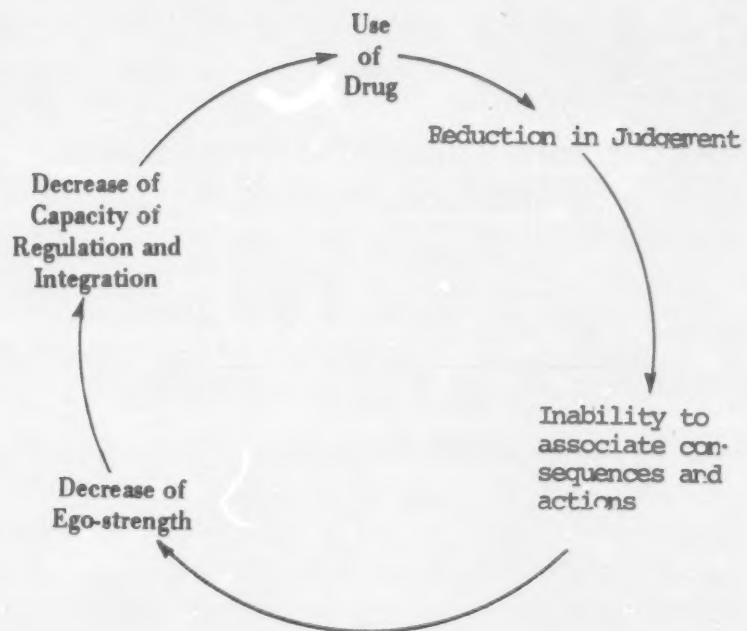
Negative factors

Positive factors

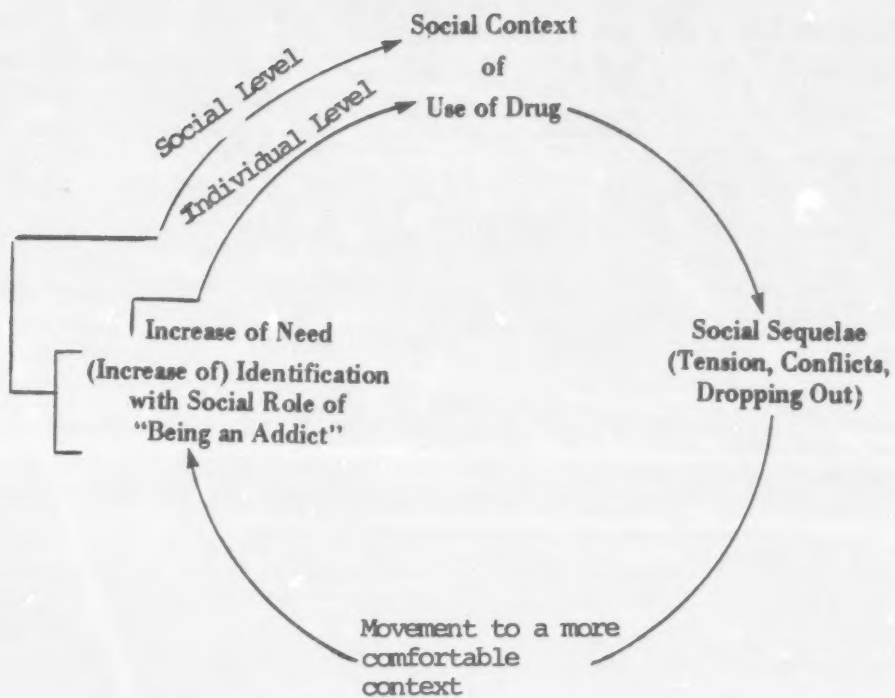
TABLE 3. OPERATING FACTORS IN THE ETIOLOGY OF THE PROCESS OF DRUG USE



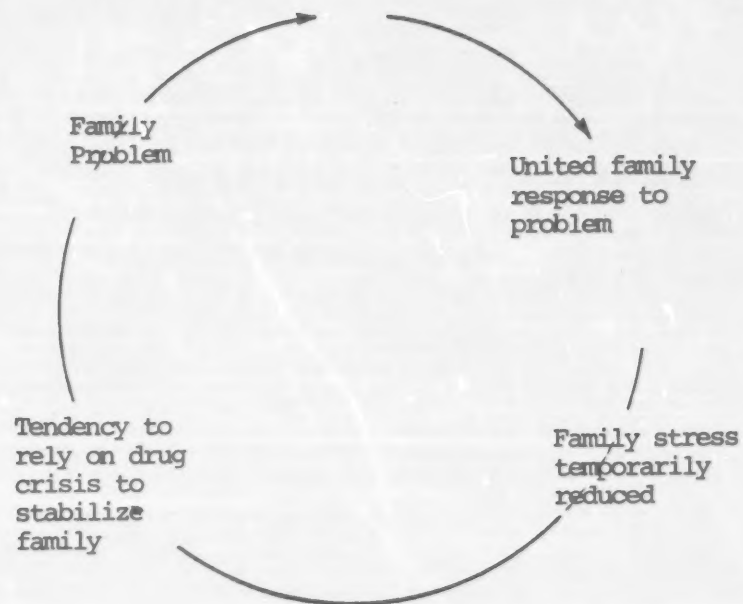
PHARMACOLOGICAL VICIOUS CIRCLE



EGO WEAKENING VICIOUS CIRCLE



SOCIAL VICIOUS CIRCLE



FAMILY VICIOUS CIRCLE

ALCOHOL AND HEROIN

	Alcohol	Heroin
DEGENERATIVE EFFECTS	Serious short- and long-term degeneration	Pure narcotic — less short- and long-term degeneration of body organs and tissues than with alcohol.
CONTAMINATION	Controlled purity	Cut (mixed)
WITHDRAWAL	Frequently produces convulsions and death; -longer than 72 hours accompanied by severe symptoms; -DT's and convulsions; -can take up to two weeks.	Rarely produces convulsions or death. takes approximately 72 hours. (Methadone can be up to 6 months)
SOURCE	Formed naturally -product of fermentation	Formed naturally Opium — Poppy
COMMONALITIES	Potentiality of Addiction Severity of Withdrawal Process Can be used as a general anesthetic (depresses CNS) Can be used as a general anesthetic without developing addiction or compulsive use.	
LAW & SOCIETY	Legally and socially accepted (frequently socially expected by a majority of groups).	Illegal and socially unacceptable in the majority of groups.

CHART 1

REACTION TO SEDATIVE HYPNOTICS (PARTICULARLY ALCOHOL)*

DEATH

Convulsions

Delerium Tremens

Hangover

Anxious
Aggressive

Normal
Range

Reduced Inhibitions

Loss of Motor Control

Loss of Coordination

Passing Out

Comatose

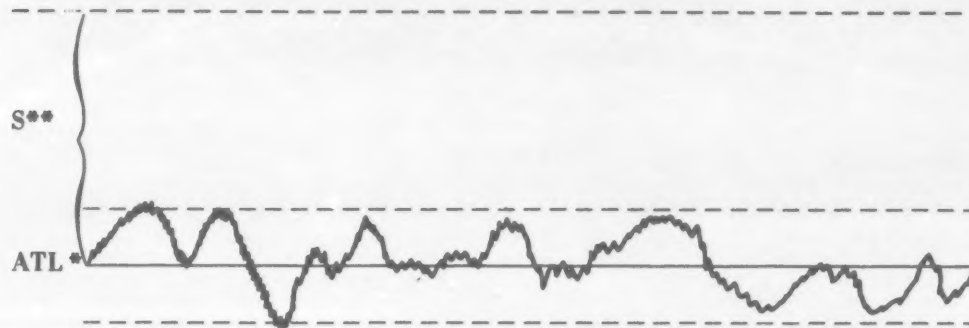
DEATH

*This illustration was developed by H. Stephen Glenn, and printed with the permission of Dr. Stanley Gitlow.

CHART 2

AVERAGE TENSION LEVEL

CONVULSIONS



COMATOSE

Hours → 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14

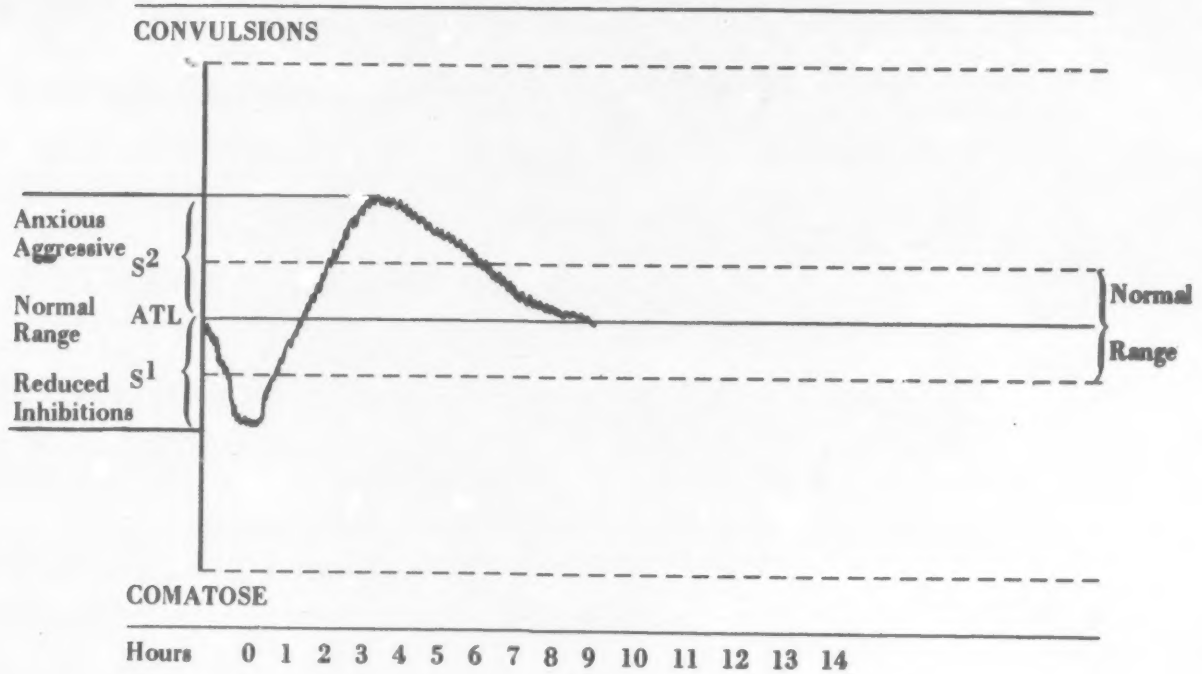
*ATL *Average Tension Level* varies with each individual.

**Average Amount of *Stimulation* Required to Produce Convulsion

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CHART 3

TENSION CHANGES DUE TO ALCOHOL CONSUMPTION



(sedative effect)

- S¹ Reduced tension level due to sedative/hypnotic consumption.
 S² Increased tension due to psycho-motor stimulation.

CHART 4

THE BUILD-UP EFFECTS OF ADDITIONAL ALCOHOL CONSUMPTION

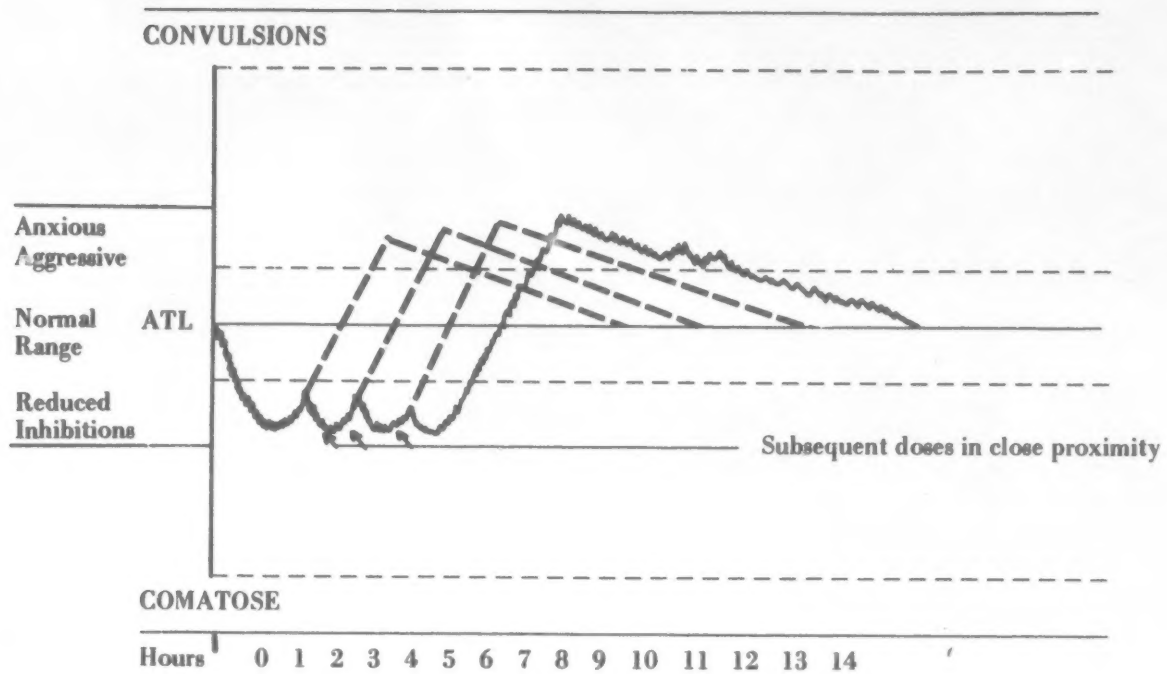
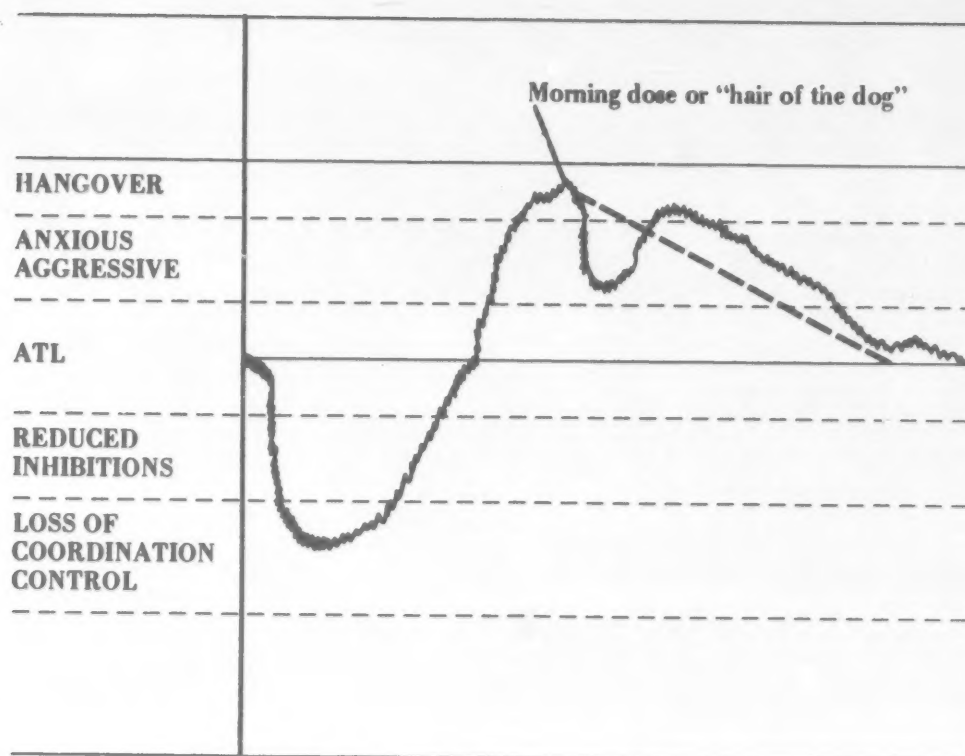


Figure 4

CHART 5

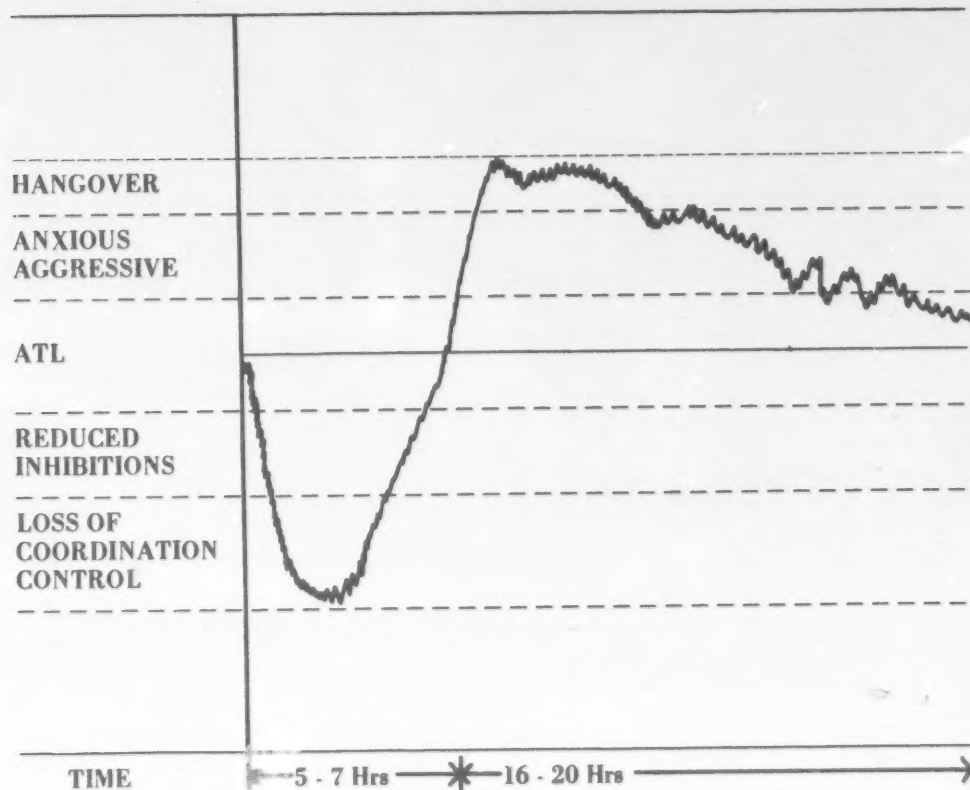
"HAIR-OF-THE-DOG" EFFECT *



*The term "hair of the dog" refers to the colloquial expression, "to recover, take a hair of the dog that bit you."

CHART 6

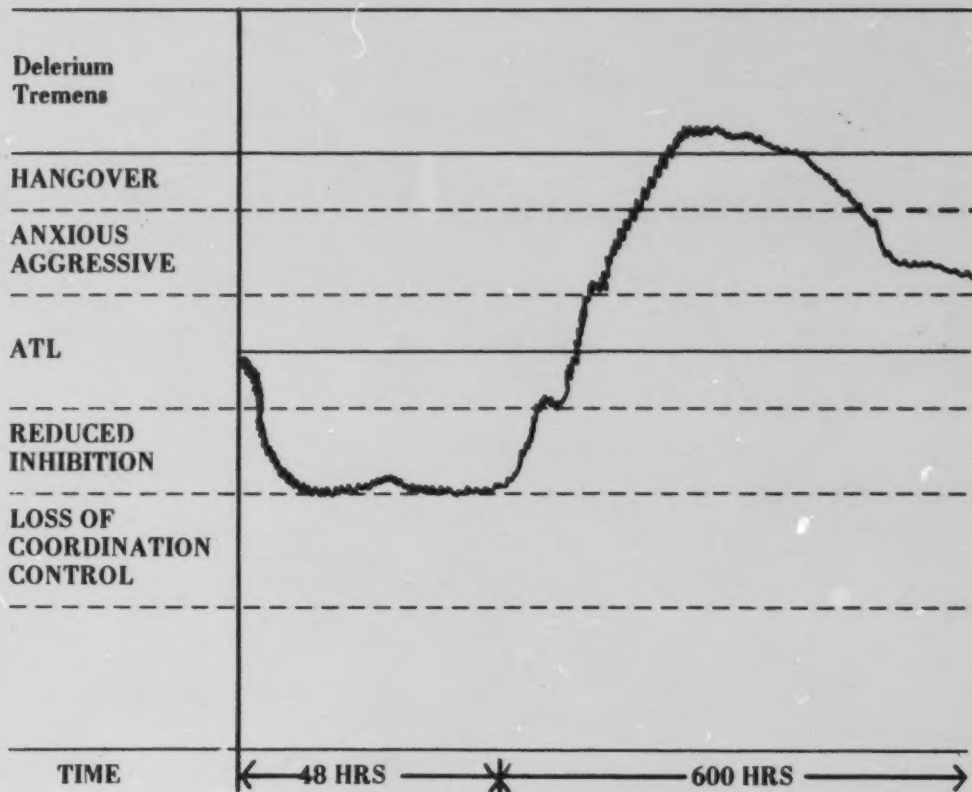
EFFECTS OF HIGHER ALCOHOL DOSAGES



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CHART 7

TENSION LEVELS PRODUCED BY FORTY-EIGHT HOURS OF HIGH LEVEL ALCOHOL CONSUMPTION

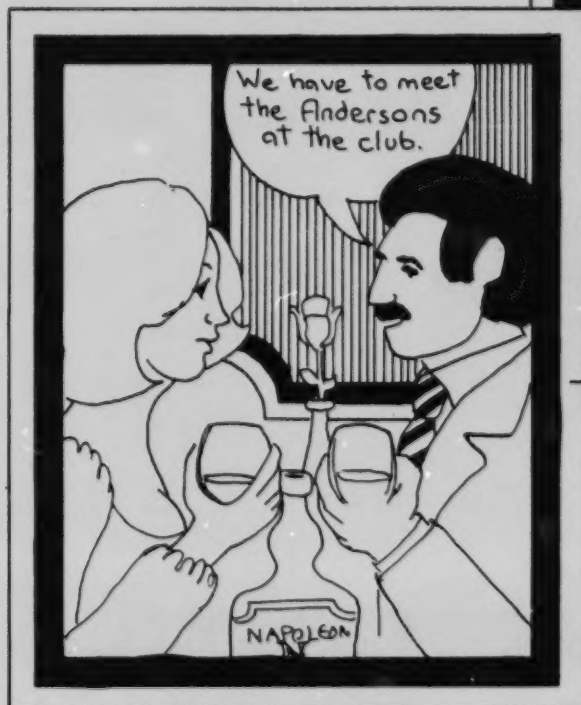


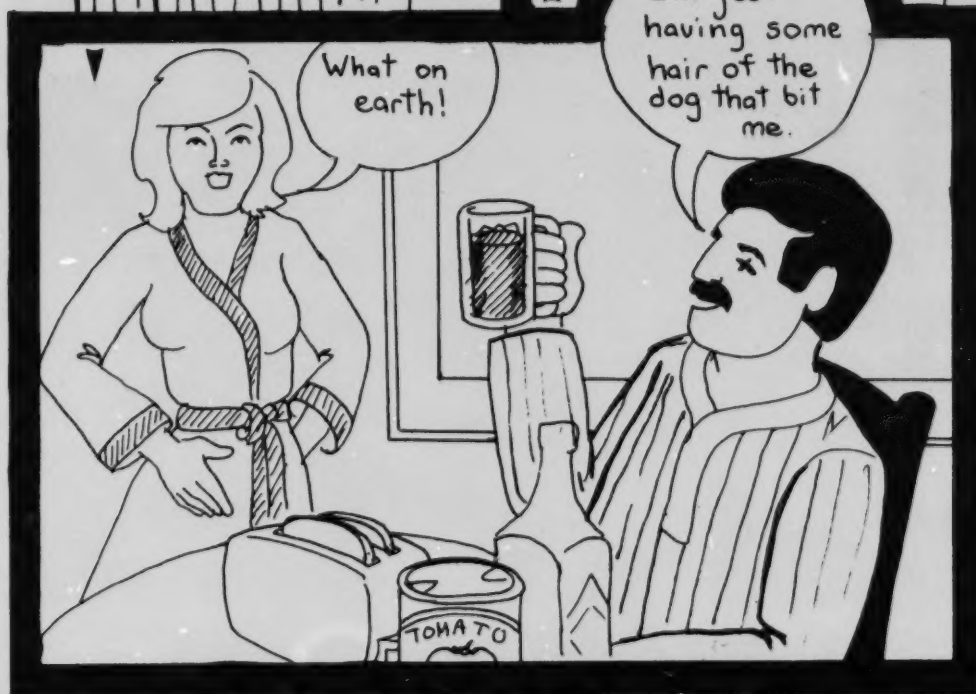
STAN ABUSE

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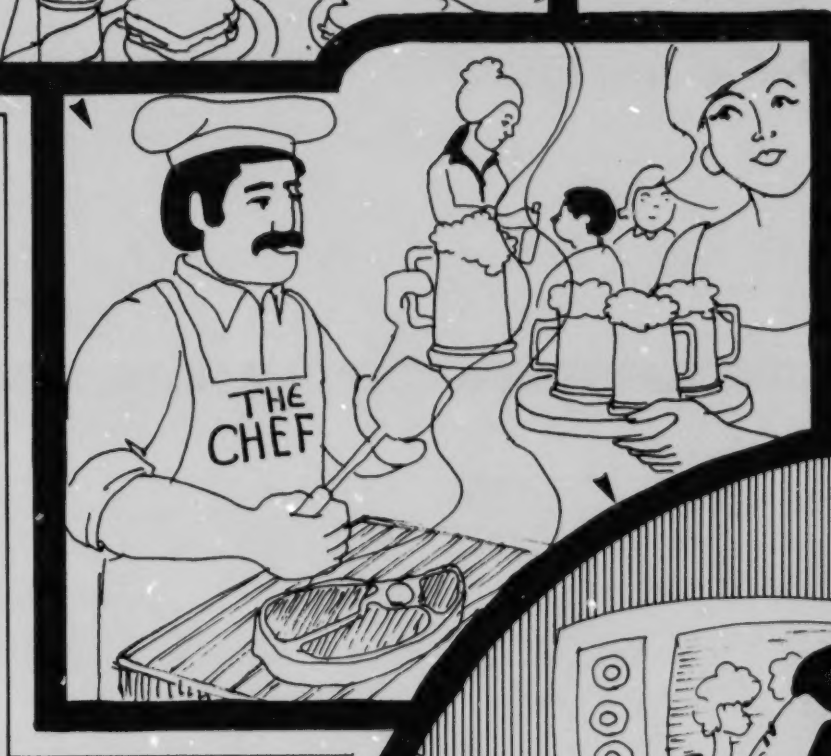








12



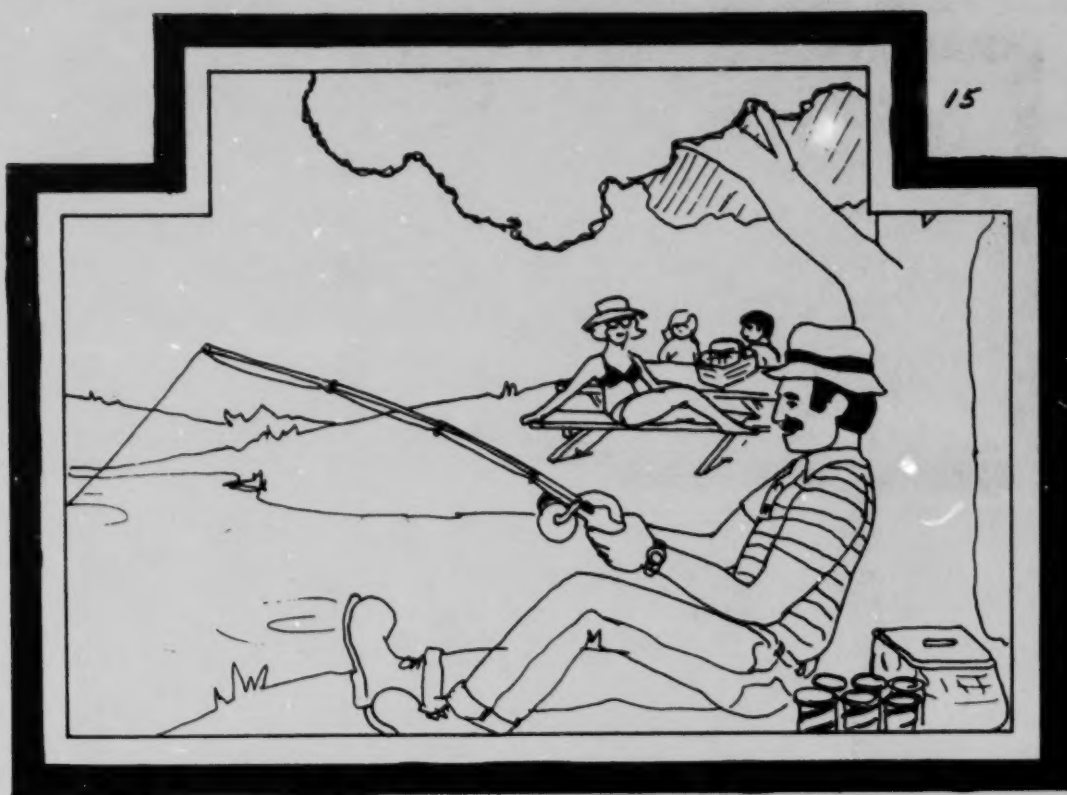
13



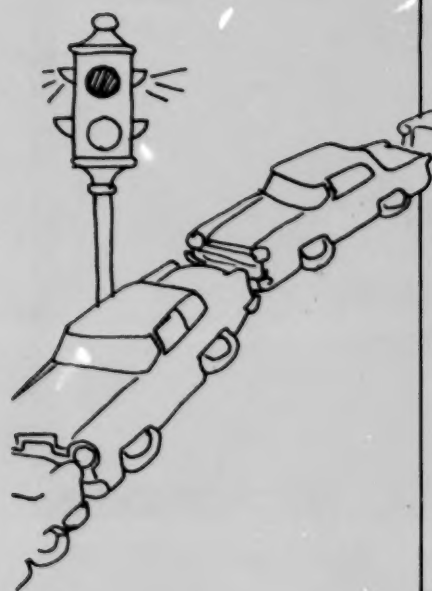
14

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By Sunday night
he has a raised tension level
which will not return
to normal (ATL) until
Wednesday afternoon.







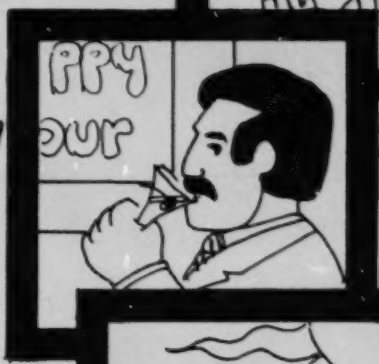


25

30



29



28



26



4 P.M.
Tension
Returns

27



204



This story illustrates
a tragic and unnecessary
pattern of life for millions of Americans.

CASE 1

ALAN E. NATED

A 16 year old who smokes marihuana daily and who "zonks" himself out on weekends with alcohol, quaaludes, and angel dust. He is involved in constant battles with his parents, particularly his father who has resorted in angry desperation to calling in the local police to "bust" his son and friends at his home. The son responds by seeming to increase his use of drugs and flagrantly stumbling around the house. Even his friends are starting to advise him to "cool it" which only increases his hostility and the amount of time he spends alone getting "ripped."

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CASE 2

DONNA INTERVENE

A 26 year old woman working as a senior counselor at a drug counseling and education center has a history of drug use for about seven years. While in college she smoked marihuana on a fairly regular basis and used cocaine and psychedelics such as peyote and mescaline occasionally at parties. She continues to smoke marihuana, although somewhat more irregularly, usually on weekends with her boyfriend or other close friends. She has snorted only about a half dozen lines of cocaine in the last year and a half, primarily because of its increasing expense and unknown additives. She has stated that she has fond memories of tripping and if she could ever come across some good mescaline she would consider going to the country and tripping some weekend.

CASE 3

MRS. HERMAN ALOT

A 38 year old housewife married to a wealthy traveling sales representative. For the last three years she has developed a dependency on coffee and amphetamines. She has few friends and lives in a rural community about 40 miles from a large metropolitan area. She reports using amphetamines to keep her weight down and to feel better. She frequently reports feeling lonely and depressed the weeks her husband is gone. When her husband is home she rarely uses amphetamines. Marital problems are developing because of his absence and her "constant sleeping and lack of responsiveness."

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CASE 4

BARB E. TURATE

A 17 year old woman is dependent on reds also uses alcohol and hallucinogens when she can get them. She's a college freshman and doing well in school. She doesn't think she has a problem but she was concerned about feeling anxious when she was unable to find her reds last weekend. Her roommate, Dee Tox. is concerned but doesn't know what to do.

CASE 5

IAN D. COSMOS

A 35 year old male who uses marihuana occasionally and alcohol daily but who has previously made extensive use of LSD. He feels he's "burnt his mind out" on LSD (he made about 300 trips) in the 1960's. He has no job and poor social skills. He finds it difficult to relate to others and finds it difficult to concentrate on a topic for more than a moment. There is no way of telling if his lack of concentration preceeded his LSD use.

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CASE 6

JUAN MORPHER D'RHODE

A 33 year old English professor at a large Midwestern university has been an alcohol abuser for the past three years. On weekdays during the school term, he rarely drinks more than a few beers or an occasional glass of sherry. On weekends, however, he consumes up to a gallon of scotch or rye beginning after his last class on Friday and drinking steadily until Sunday evening when he collapses into a fatigue and drink induced stupor. His young wife, Ann Abler, who is also on the faculty, has expressed concern about his weekend binges in the past but has recently begun joining him on his spree.

CASE 7

GAR BAGEHEAD

A 45 year old male who spends much of his time high and who seems to use a variety of drugs indiscriminately with no discernible pattern. His history and current situation reveal considerable emotional instability and very poor social competence. He has been using drugs for approximately twelve years with periods of abstinence interspersed with periods of "binge" type abuse. He began using barbiturates in conjunction with alcohol and now additionally uses methaqualone, valium, marihuana, PCP, and occasionally dilaudid. He has had several psychiatric hospitalizations and has been diagnosed a schizophrenic. His treatment has indicated the prescription of a minor tranquilizer while in a day care program, but was discontinued when he was found to be continuing to use other drugs as a supplement.

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CASE 8

EMMA MESS

A 31 year old woman who extensively uses a variety of street and prescription drugs, and is addicted to heroin. She is a divorced former insurance salesperson who has been addicted for just under two years. She is currently living alone and maintaining a job as a clerical secretary for a small business. She has had a long history of treatment failure ranging from individual therapy to a short stint in the Church of Eschatological Obfuscation, during which she remained abstinent for four months.

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CASE 9

SUE DEDOC

A 71 year old female was widowed two years ago. She has few friends and her family lives across the country. For the last year she has lived in a highrise for the elderly. Shortly after she moved she began using alcohol regularly and significantly increased her use of Valium R (both of drugs were used daily). She rarely leaves the apartment and is becoming more and more depressed. Her physician continues to renew her prescription for Valium R because of her nerves.

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MODULE VI: APPROACHES TO THE TREATMENT OF SUBSTANCE ABUSE

PERSPECTIVE

The purpose of this module is to provide information on the forms of treatment that are used to overcome chemical dependence.

CONTENT

Overview of Module VI (5 minutes)

Lecture/Discussion: Treatment of Opiate Dependence (30 minutes)

Lecture/Discussion: Treatment of Alcoholism (40 minutes)

Lecture/Discussion: Treatment of Nonopiate Dependence (10 minutes)

Lecture/Discussion: Drug Abuse Treatment Modalities: An Overview (40 minutes)

Small Group Activity: Decision Makers and Value Classification (60 minutes)

Summary (5 minutes)

Total Time: 3 hours, 10 minutes

OBJECTIVES

Using the information presented in Module VI as criteria, at the end of this module, and without the aid of notes, participants will be able to:

1. Identify at least one rationale underlying methadone maintenance for treatment of heroin dependence.
2. Identify at least one principle of the Alcoholics Anonymous approach to alcoholism treatment.
3. Identify at least one characteristic of one of the phases of an alcoholic's movement toward recovery.
4. Identify at least three modalities applicable to the treatment of an opiate dependent person.
5. Identify at least one advantage and one disadvantage of a therapeutic community in terms of treatment.

MATERIALS REQUIRED

Resource Paper "Treatment of Opiate and Nonopiate Dependence"

Resource Paper "Treatment of Alcoholism" by Gayle Hamilton

Resource Paper "Drug Abuse Treatment Modalities: An Overview" by Stephen Pittel, et al.

Role instructions and case studies for "Decision Makers and Values Classification" exercise

Large and small group meeting space

Markers, tape, and newsprint pad

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
5 minutes	<u>OVERVIEW: MODULE VI</u> • Review the Objectives of Module VI with the total group • Introduce the module as follows: - Earlier modules have focused on the use of various substances from historical and pharmacological perspectives. The etiology, patterns, physiological and psychological effects, and the consequences of drug abuse have been discussed. - In this module, treatment methods and strategies for responding to the drug abuser will be presented, according to the major factor of the type of drug abused. <u>TRAINERS NOTE:</u> Because some or many of the participants may have extensive clinical or personal experience with a variety of the treatment methods discussed in this module you may want to invite participants to become actively involved. Frequently this module is a nice change of pace from the heavy lecture format in most of this course when participants are involved in the delivery. You may wish to: • Ask members to volunteer for a panel overviewing the major treatment approaches; • Visit local treatment programs; • Assign small groups the task of presenting a number of the specific treatment methods; • Rely heavily on a lecture/discussion format.
30 minutes	<u>LECTURE: TREATMENT OF OPIATE DEPENDENCE</u> <u>(Trainer's Note):</u> This lecture covers treatment of opiate dependence by tracing the evolution of treatment technique from the early Lexington and Fort Worth facilities to the current major modalities including methadone maintenance and therapeutic communities. These modalities are presented in terms of the theories behind them and the strategies they employ. • Present the following lecture based on the resource paper for this module highlighting the following points. • During the 19th century, treatment was handled by private physicians and involved helping the patient through withdrawal. • The widespread medical use of morphine during the Civil War resulted in morphine addiction among thousands of soldiers. • Availability of opium in the form of patent medicines resulted in addiction among thousands of other people—many of them rural housewives.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	- Heroin, developed in 1898 as a potent pain killer, was believed to be nonaddictive. Because heroin relieved morphine withdrawal symptoms, it was advertised as a cure for morphine addiction. • In the late 1800's most physicians regarded drug addiction as a physical disease curable by gradually reducing use of the drug. • The psychological element of addiction was ignored. • The problem of drug addiction did not become a public health issue until the 20th century. • The Harrison Act restricted the distribution of opiates and cocaine. • The Federal Government interpreted the law as prohibiting doctors from prescribing maintenance doses to addicts. • After 1919, when legitimate sources of narcotics were no longer available, thousands of addicts, particularly those in the larger cities, turned to the illegal market. • The Federal Government encouraged large cities to establish temporary clinics for maintenance of dependent persons on doses of opiates. • Forty-four clinics were established. • The poor performance of some of the clinics led the Federal Government to withdraw its support. • The last of the clinics had closed by 1925. • A new pattern of drug abuse had begun to emerge in the larger cities. • From 1925 to 1935, treatment for drug abusers was virtually nonexistent. • In 1929 Congress authorized the establishment of two drug abuse treatment hospitals, as a means of segregating the opiate dependents. • The first Federal drug abuse treatment clinic opened in Lexington, Kentucky, in 1935; the second opened in Fort Worth, Texas, three years later. • Although the clinics were designed primarily for incarceration of addicted Federal prisoners, voluntary patients were accepted. • The clinics withdrew patients using decreasing doses of morphine, followed by a period of inpatient treatment which was supposed to last several months. • The Federal clinics at Lexington and Fort Worth were the only major drug abuse treatment facilities in the country until 1952, when the State of New York opened Riverside Hospital for juveniles.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	● Treatment involved hospitalization for a period of 18 months or more, followed by a period of outpatient care. ● Synanon was founded in 1959 by a former alcoholic named Charles Dederich. ● It emphasized the psychological element of drug addiction and attempted to modify the addict's character through group therapy and reinforcement of good behavior. ● The therapeutic community and group therapy were soon recognized as important methods of treatment. ● In 1961 and 1962, California and New York established statewide treatment programs for drug addicts, modeled after Lexington. ● Treatment involved withdrawal, psychiatric care, and group therapy—beginning with a period of mandatory hospitalization. ● In 1964, Marie Nyswander and Vincent Dole began an experimental drug maintenance program in New York using methadone, a synthetic opiate substance. ● Hospitalized patients were gradually stabilized on a high daily dose of methadone. ● After stabilization, the patients were released and required to return to the clinic daily for their methadone dose. ● Methadone programs then proliferated across the country; by 1972 methadone had become one of the most widely used treatment methods. ● Researchers at Lexington began to experiment with the use of narcotic antagonists—drugs that counteract the effects of opiates without being addictive themselves. ● The main problems with using antagonists in the treatment of addiction proved to be their short duration of action and some unpleasant side effects. ● In 1966, while methadone maintenance was still in the experimental stages, the Narcotic Addict Rehabilitation Act (NARA) (P.L. 89-793) was passed by Congress. ● Title I of the Act authorized diversion to treatment. ● Title II provided for treatment as a sentencing alternative. ● Title III provided for voluntary and involuntary civil commitment to Federal treatment facilities. ● Under Title IV, the Federal Government began to provide financial and technical assistance to States and cities for the development of drug abuse treatment programs.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	• The Comprehensive Drug Abuse Prevention and Control Act of 1970 (P.L. 91-513) further expanded community assistance programs. • The Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255) provided greatly increased Federal resources. <u>INPATIENT</u> • Used to treat drug dependents in the 19th century, and the method was continued at the Lexington and Fort Worth clinics. • Gradual withdrawal of the drug, until the patient was drug free. • Withdrawal was followed by a period of inpatient care, during which the patient remained isolated from his former environment and from drugs, and received psychiatric counseling, psychotherapy, group therapy, and work therapy. • The third stage consisted of a period of out-patient care. • The term "civil commitment" has often been used to describe the hospitalization method because legal controls have been used frequently to confine patients to hospitals. • Hospitalization is the most expensive method of treatment, and the least effective, in view of the high relapse rates. <u>METHADONE MAINTENANCE</u> • In recent years, methadone maintenance has been the most widely used method for treating opiate-dependent persons. • Methadone maintenance programs have demonstrated the ability to attract and retain in treatment a large number of opiate dependent persons. It is a less expensive method than hospitalization or confinement. • The technique developed by Dole and Nyswander used methadone in sufficient dosage to create in patients a "blockade effect." • In many patients this "blockade effect" tended to discourage repeated illicit opiate usage. • Many maintenance programs today use a lower daily dose of methadone, which is sufficient to prevent withdrawal symptoms, although it does not completely "block" the effects of a high dose of heroin. • Federal regulations now require that methadone maintenance programs provide additional treatment such as group therapy, family counseling, vocational training, and social services.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	● Eligibility is limited to persons 16 years of age or older who can demonstrate that they are opiate dependant and have been for at least two years. ● The ultimate goal of methadone maintenance treatment is eventual withdrawal from methadone and elimination of dependence on any drug. ● The general goal of methadone maintenance is to relieve the craving for heroin while engaging the patient in additional treatment aimed at helping him work out a better way of living. ● Outpatient detoxification treatment involves administering decreasing doses of methadone over a period ranging from a few days to a few weeks for the purpose of relieving withdrawal symptoms. ● Statistics reveal that detoxification alone is usually unsuccessful. ● Critics point to the fact that methadone does not cure drug dependence but merely transfers dependence from one drug to another. ● Another criticism is that some patients begin chronic abuse of other drugs. ● Federal policy emphasizes that entry into methadone maintenance should be voluntary. <u>THERAPEUTIC COMMUNITIES</u> ● Therapeutic communities are residential treatment programs which attempt to deal with the psychological causes of addiction by changing the addict's character and personality. ● The first therapeutic community for drug addicts was Synanon, founded in 1959. ● Techniques used were modeled after those of Alcoholics Anonymous, which involved repeated confessions, group interaction, and mutual support among the members. ● The idea of a group of people living and working together for their mutual benefit was a basic tenet of the therapeutic community. ● The treatment method is based on two techniques of group psychotherapy: confrontation, or encounter group therapy, and "milieu therapy" in which the addict lives and works within a hierarchial social structure. ● Principles of behavior modification, or conditioning, are applied constantly. ● Synanon is a permanent community where residents may remain for life. Most therapeutic communities

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	require members to stay one or two years. ● The older programs screened applicants rigorously, accepting only the most highly motivated individuals. ● The older programs also continue to be completely drug free, whereas some of the newer programs use methadone maintenance. ● Therapeutic communities appear to be suitable for very few people—about 75 percent of those who enter them drop out within the first month. ● Some critics feel that the treatment goes against the principles of supportive psychotherapy. ● Therapeutic communities are more expensive to operate than drug free outpatient programs. ● Therapeutic communities do not appear to be more effective than other drug free methods of treatment. <u>DRUG FREE OUTPATIENT TREATMENT</u> ● This is referred to as either drug free outpatient, ambulatory drug free, or outpatient abstinence treatment. ● Some or all of the following services are included: - Group or individual psychotherapy - Vocational and social counseling - Family counseling - Vocational training - Education - Community outreach. ● Programs also differ in the degree of patient involvement in treatment. ● Little evaluation has been done on this method of treatment since program records often omit data on patients who drop out of treatment early. ● It appears that drug free outpatient treatment may be more effective with youths who are experimenting with drugs than hardcore addicts. <u>MULTIMODALITY TREATMENT</u> ● This approach has the advantage of offering the patient a choice among alternative treatment regimes, and patients may be transferred easily from one type of treatment to another. ● Larger multimodality programs may include methadone maintenance, detoxification services, inpatient and outpatient drug free treatment, and a therapeutic community.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
40 minutes	<u>LECTURE: TREATMENT OF ALCOHOLISM</u> NOTE TO TRAINER: This lecture covers the treatment of alcoholism from the establishment of AA in 1935 through the present day, including descriptions of the three most important modes of treatment: the AA model, Halfway House Care, and Out-patient Care. New perspectives and controversies regarding the treatment of alcoholics are also discussed. Topics include alcoholism as a disease rather than a psychosis, the requirement for continued abstinence from alcohol in "recovered" drinkers, the need for alcoholics to abstain from all drugs, and effects of the AA belief that recovery is not hopeless. Finally, standard recovery patterns, mental states, and fears of recovering alcoholics, as well as the implications of the treatment of alcoholism are discussed. ● Present the following lecture based on the resource paper for this module highlighting the following points. <u>HISTORY OF TREATMENT</u> ● Medical Model - Alcoholics moral degenerates: therefore, little or no treatment - Rich often institutionalized for long term psychoanalysis - Poor died on the street ● AA Model - 1935 - Ex-alcoholics developed group approach to getting and staying sober - 12 step voluntary approach now used worldwide - Began ongoing treatment controversy <u>AA PHILOSOPHY</u> ● Alcoholism a disease - First/only disease defined by its victims - AMA accepts as disease in 1954 ● Alcohol is major problem of alcoholic - First view of medical profession treating alcoholics was that disease a symptom of mental illness These doctors thought that the treatment indicated psychoanalysis was cure to underlying mental problems Some psychiatrists/mental health centers still believe - AA research shows no specific personality type can be associated with alcoholism Great personality variations among alcoholics.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	Problem may be chemical or systematic response to alcohol - If psychological testing shows mental problems with an alcoholic, it is usually result of extensive brain damage caused by alcohol itself Within 3 to 6 months of abstinence from drinking, these symptoms usually disappear Menniger Clinic reports that alcoholic symptoms only look like mental illness Alcoholics use defenses such as denial, rationalization, and intellectualization After recovery, defenses lessen ● Abstinence from alcohol critical - AA belief that alcoholic is "only one drink away from a drunk" no matter how long a period of abstinence. Social drinking cannot be resumed - Controversy on this result of behavior modification studies showing some "cures," but studies showing these have short term (6 month - 1 year) follow-up-so unreliable. - New issue - people entering treatment at early stages of problem ● All other drug use must stop for alcoholic to "recover" - AA maintains that use of other drugs (e.g., tranquilizers, barbiturates) guarantees resumption of drinking - Reasons include: - Cross tolerance - Drugs a substitute for alcohol, because they have similar effects - Tranquilizers addictive - Drug use impairs judgment so alcoholic may risk drinking - Historically, alcoholism treatment was to give tranquilizers in a hospital setting to patients to "calm nerves;" today, most treatment programs give drugs after detoxification only in rare cases - Recovery of alcoholic not hopeless/greatest contribution of AA philosophy <u>PHYSICAL/MENTAL STATE OF ALCOHOLICS TRYING TO RECOVER</u> ● Brain damage which can interfere with client's ability/desire to stay sober and utilize treatment. This includes short term loss of memory and impairment

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	of <u>corpus collusum</u> preventing normal integration of thought and action . ● Implications of damage are - counselor cannot expect clients to understand and follow all important insights presented in therapy - behavioral change may be slow - client needs better nutrition to "heal" brain ● AA solution to problem - member pairing where each old member brings new members to meetings and old members instruct and guide new members <u>PHASES OF ALCOHOLICS' MOVEMENT TOWARD RECOVERY</u> ● Phase 1 - Honest desire for help - Addict willing to accept pain of early stages of treatment - Comes an average of nine years after recognition that he/she is an alcoholic when pain of drinking outweighs pressure and after alcoholic goes through period of testing individual ability to stop drinking - Reasons for entering treatment include - knows he/she has problem; willing to solve in any way - uncertain (disbelieving) of existence of problem but wants to try to eliminate it - coming for someone else, e.g., spouse, parent ● Phase 2 - Alcoholic Stops Drinking Alcohol - requires supervised detoxification programs - Alcohol one of the most dangerous drugs from which to withdraw 10 - 15 percent (estimate) of chronic drinkers trying unsupervised withdrawal die - Two types of detoxification programs - Medical - usually hospital program with heavy monitoring, lasts 2-5 days - Nonmedical or social setting - withdrawal in a social setting with less medication and more informal supervision - Goals of detoxification programs are to minimize withdrawal symptoms and reestablish appetite so body can restore nutritional balance ● Some theorists believe nutritional imbalance may contribute to excessive drinking

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	● Consumption of alcohol interferes with ability of body to utilize nutrients ● Limited eating of heavy drinkers results in mal-nutrition which harms not only the physical body but the alcoholic's mental processes as well ● Another goal is to motivate the person to continue treatment to full sobriety - Period immediately after detoxification critical - Addict feels so good cannot believe s/he's still sick - Education regarding alcoholism must be provided at this point so that treatment will continue ● Phase 3 - Learns alcoholism is a disease - Critical step - Alcoholic must reject negative myths surrounding disease (i.e., alcoholics are moral degenerates) - Acceptance of concept forces alcoholic to take responsibility for recovery ● Phase 4 - Whisper of hope - Alcoholic thinks she/he's recovering - Feels significantly better - Ends with return to problems associated with alcoholism itself: - Mental confusion - Mood swings - Sleepless nights - Depression ● Phase 5 - 8 Problems of Recovery - Alcoholic has problems with moods, due to major phenomena - healthy bodily functioning not yet returned - nutritional deficiencies - hormone problems - brain functioning poorly - need for recovering alcoholic to face realities of life and disease - The recovering alcoholic must resolve personal problems, sleepless nights, anger, without liquor.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	- Resolve marital and friendship problems without liquor - Resolve shaky job situations and repay debts - Resolving these problems is nearing recovery - Recovery model demands that recovering alcoholic relearn many basics - alcohol inhibits intellectual learning - alcohol inhibits social learning - learning overcomes frustrations of not drinking ● Phase 9: Fear of Insanity - Appears between third and sixth month of not drinking - Related to physiological healing and inability to deal effectively with relationships - Fear may precipitate slip into drinking - Paranoia often part of first months of sobriety - Related to self perception - Comes from negative self feelings, e.g., "everyone hates me" - Contact with people especially necessary during this period to decrease feelings of worthlessness ● Phase 10: Guilt and Remorse - A heavy burden carried by all recovering alcoholics - Necessary part of recovery process - Phase 11: More confidence - Comes by sixth month - Confidence increases, resulting in - Lessening of mood swings - Progress in external achievements - Possibility of crash from not feeling worthy <u>IMPLICATIONS FOR TREATMENT</u> ● Recovery is a long term process - Cannot be done alone - Treatment beyond detoxification needed ● Alcoholic must be educated about nutrition so brain and body can recover

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	- Allows alcoholic to understand reasons for memory loss, depression, mood swings, sleepless nights - Understanding allows person to ride through rough periods without slipping ● Recovering alcoholic must learn basic underpinnings of human relationships - Ability to communicate feelings and needs clearly - Ability to cope with stress efficiently - Ability to get close to people without fear <u>RECOVERY SETTINGS/TREATMENT MODELS</u> ● Alcoholics Anonymous (AA) - 12 step recovery program - Social atmosphere allowing identification with others with similar problems ● Residential Care - 28 days - 1 year inpatient care depending on patient needs and program philosophy - Primarily for those needing intensive early intervention - Away from family - Away from work - Requires long time period outside mainstream - Basic tools are - Individual, group, family therapy - Family like community interaction of AA ● Halfway Houses - Sometimes follows residential care programs - For those who have no outside support system - Less intensive treatment program allowing: - Person to find employment - Save enough money to establish outside residence - Treatment activities, including AA, primarily at night ● Outpatient Care - Appropriate for most of those seeking care - Less intense form allowing continuation of job, etc.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
10 minutes	- After assessment, individual treatment plan developed • Tools: group, individual, family therapy, AA, some workshops • Focus on education, life style restructuring, self knowledge, interpersonal relationships - Length of treatment as much as 2 years—depending on individual needs and program philosophy • Focus of all programs is to get client involved in AA eventually • Ask group members if they have questions about the material presented thus far. If so, respond accordingly. <u>LECTURE: TREATMENT FOR NONOPIATE DEPENDENCE</u> <i>(TRAINER'S NOTE): The lecture discusses treatment of nonopiate dependence such as barbiturate dependence.</i> • Present the following lecture based on the resource paper for this module highlighting the following points: • There are no specialized methods for treating dependence on drugs other than opiates or alcohol • There is no chemotherapy, such as methadone maintenance for treating abuse of the nonopiate drugs which include amphetamines, barbiturates, and hallucinogens. • These drugs are often referred to as "soft drugs" as opposed to "hard drugs" (opiates). • This term is often misleading in that it implies that these drugs are less harmful. In fact, they are often equally as addictive as hard drugs and in some cases more life threatening. - Abrupt withdrawal from barbiturates is much more life threatening than withdrawal from opiates, and requires hospitalization. - Simultaneous use of more than one drug sometimes produces serious adverse reactions. - Emergency treatment, usually called crisis intervention, is sometimes required for acute adverse reactions resulting from nonopiate drug use. • Young drug users are reluctant to go to hospitals. • As a result, free clinics were set up in many cities to provide an alternative to emergency room treatment. • Staffed by doctors, psychologists and others on a volunteer basis, these clinics provide a variety of general medical and social services in addition to treatment of drug abuse emergencies.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
40 minutes	● For those experiencing adverse psychological reactions to drugs, these centers provide a calm, supportive environment and reassurance, or "talking down" by an experienced staff member. ● Many crisis intervention programs operate telephone hotline services. ● Most crisis clinics have very little follow up on patients, since they are primarily concerned with immediate problems. - Some of the larger programs now serve as community mental health centers, providing counseling and therapy for a broader range of social and psychological problems.
	<u>LECTURE: DRUG ABUSE TREATMENT MODALITIES-AN OVERVIEW</u>
	● <i>State the following:</i> - Virtually all forms of therapy have been tried in the treatment of chemical dependency. These range from "no treatment" to "high risk group treatment activities." The description should be regarded as guidelines rather than definitive requirements. Whenever possible, the client's individual strengths and weaknesses and other factors pertinent to recovery should always be considered. ● <i>Present the following lecture based on the resource paper for this module highlighting the following.</i>
	<u>No Training Required</u>
	● This assumes that the client is able to deal effectively with his/her environment and that drug use does.
	<u>Drug Information And Education</u>
	● This provides information about drugs and their effects through literature, discussion groups, films. ● Such programs assume that knowledge about drugs will deter drug use, impede the escalation of drug misuse, and enable clients to make well informed, rational choices. ● Some "street" information programs provide additional services, such as crisis intervention, drug chemical analysis, and timely information about "unsafe" drugs being distributed in the community.
	<u>"Alternatives" Programs</u>
	● These provide various types of individual and/or group involvement which meet many of the same needs that often underlie adolescent drug abuse.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	● Three important subcategories can be distinguished: - Activities directed toward achieving altered states of consciousness, - Activities that present real and/or simulated risk situations, - Activities that focus overtly on personal growth. ● Activities programs generally do not have a daily routine, are totally voluntary, require relatively little time commitment, and are loosely organized. <u>Community Activities</u> ● These are generally preventive strategies that impede further drug involvement. ● Participation is usually totally voluntary, and the time involved is generally determined by the participant's personal commitment. <u>Brief Counseling</u> ● This focuses on immediate crises rather than long term behavioral problems. ● Situational problems (educational, vocational decision-making, interpersonal conflicts, drug and alcohol abuse, etc.) are dealt with on a "here and now" basis. ● The participant's commitment to any aspect of the program is entirely voluntary, with the exception of those participating through a criminal justice diversion system. <u>Short Term Psychotherapy</u> ● The shift in treatment emphasis, beginning with this modality, is away from the solution of immediate, manifest problems to more long range, generalized goals. ● This mode relies upon one to one interviews with a professionally trained individual, usually a psychiatrist, psychologist, counselor, or social worker. ● Many psychotherapeutic practitioners specialize in one or another particular "school" of counseling theory. <u>Family Counseling and Therapy</u> ● The one to one psychotherapeutic process is often expanded to include the family; the therapist seeks to improve the functioning of the family as a group. 214

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	● Under intensive study and treatment by the therapist over this period, the family is taught how to work through stressful situations. <u>Extended Psychotherapy (Individual)</u> ● Individual psychotherapy is an intense, one to one relationship that usually extends for a year or more. ● Emphasis is on significant personality change, brought about through a reeducation of the individual at both the conscious and the unconscious levels. ● This modality differs from shorter therapeutic strategies not only in duration but also in intensity of therapy. <u>Extended Psychotherapy (Group)</u> ● This mode involves professional therapy in a group setting. Intense personal problems rather than personal growth or even interpersonal relationships form the substance of group psychotherapy. ● Lasts typically from several months up to two years. ● Several types of clients are inappropriate candidates for this treatment modality: - Clients who are extremely aggressive or hostile; - Clients who are regularly in close contact with one another outside the group setting; - Clients who are fairly sophisticated in group processes and who tend to use their knowledge cruelly on others; - Clients having very little contact with reality. <u>Group Encounters (Light)</u> ● Group participation tends to focus on these interpersonal behavior and on current behavior patterns that are observed by group members. For the most part, such material is dealt with on a contemporary and situational level rather than in a probing and analytical level. ● Clients who have very rigid defenses seem not to benefit from this lighter form of encounter. <u>Group Encounters (Heavy)</u> ● These are geared toward direct and sometimes violent verbal confrontation. Group sessions are characterized by a great deal of emotion and a "no holds barred" approach. ● This form of treatment is particularly useful for clients with rigid defense patterns.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	<u>Day Care Activity Programs</u> • These programs offer a varied program of relatively informal services, including vocational and educational training, "alternatives" programs, and some form of light therapy—individual and/or group. • These programs are most effective with clients who have demonstrated past abilities to involve themselves in one to one and group relationships. <u>Ideological Groups (Nonresidential)</u> • The primary emphasis of programs in this category is upon a religious or ideological conversion in which the participant gives himself to the cause. <u>Structured, Therapeutic Day Care</u> • This modality intervenes more drastically in the client's life than any of the previously discussed alternatives. • Clients are expected to report to the facility on a daily basis and to participate in a highly structured schedule of regular activities. Such activities include individual and/or group psychotherapy, vocational and educational counseling and related services, regular maintenance of the facilities, recreational activities, arts and crafts projects, and field trips. • Structured, therapeutic day care is recommended for clients whose drug involvement has been relatively short (less than one year) and who have poorly developed social skills. <u>Inpatient Detoxification/Counseling</u> • During detoxification, the client is withdrawn gradually from drugs in a medical setting, often a hospital. • This treatment alternative is appropriate for clients with very well developed social skills, regular involvement in a job or school, and a drug free home environment; clients being referred to some other, predetermined treatment alternative, but who require prior detoxification; clients for whom no treatment referral decision can be made until withdrawal is at least partially complete. <u>Ideological Groups (Residential)</u> • This focuses on the furtherance of some specific religious or political doctrine, and on teaching the client to aid the program in that effort. • Clients in this modality must be able to make changes in their lifestyles in order to adjust to the residential setting.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	<u>Halfway or Reentry Houses</u> ● Halfway or reentry houses have traditionally served as temporary live-in facilities for those released from jail or inpatient psychiatric care. ● The reentry house has as its primary goal the introduction of the client back into society. ● The halfway house is recommended particularly for clients with well developed social skills, and for clients who are involved in some constructive daily routine—e.g., a job or school. <u>Residential Therapeutic Community (Light)</u> ● The objective is to remove the client from the social environment in which he has been using drugs. ● A primary therapeutic tool is the supportive peer interaction of the residents themselves. ● Supportive individual therapy and mild confrontation group sessions are an essential part of the program. ● This is recommended for clients with severe drug abuse problems of comparatively long duration, for clients who would otherwise live in an environment that encourages drug use, and for clients who have recently been released from a prison or hospital. <u>Residential Therapeutic Community (Heavy)</u> ● The drug user is seen as a person whose emotions and behavior have not developed past his childhood. ● The kind of psychotherapy used is heavy confrontation and attack therapy. The aim is to break the client down. ● This modality is recommended for clients with a lengthy history of serious opiate, sedative, or multidrug abuse. <u>Methadone to Abstinence</u> ● This type of treatment provides the client with controlled doses of methadone daily. The assumption is that the client is capable of eventually abstaining from both heroin and methadone. ● This treatment alternative is offered on an out-patient basis, but the client's commitment to the program must be quite strong, since he is physically dependent upon the distribution of methadone. ● This modality is recommended for clients with a lengthy history of involvement with opiates, but with well developed social skills and a regular commitment to a job, school, or some other constructive activity.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	<u>Methadone Treatment Programs</u> ● The client is provided with daily controlled doses of methadone for an indefinite period. ● Many methadone programs now consider group and individual psychotherapy to be an integral part of their treatment plan. ● This form of treatment demands a serious commitment on the part of the client—he must report to the program at least several times a week to obtain his methadone doses—for an indefinite period of time. ● This modality is recommended for clients with a long history of opiate use who are presently involved in a regular daily routine of school or work. <u>Methadone Based Residential Therapeutic Community</u> ● A single program may incorporate the services of both a therapeutic community and a methadone treatment program. ● This modality offers the most comprehensive form of treatment for long term opiate addiction. ● This is most highly recommended for long term, heavy users of heroin. <u>Custodial Care or Hospitalization</u> ● This modality is recommended only when the client has serious medical or psychiatric complications that preclude less intensive treatment. <u>Relaxation Methods</u> ● These include self hypnosis, desensitization techniques, transcendental meditation, religious meditation, biofeedback mechanisms, and electrosleep. The goal is to rid the patient of muscle tension, a feeling of anxiety and dysphoria, and to alleviate other psychophysiological disorders. <u>Transcendental Meditation</u> ● The physiological state induced has been likened to deep relaxation. <u>Biofeedback</u> ● In the addictions field, its clinical use as a relaxation technique is based on the principle that many chemically dependent people consume alcohol or other drugs to reduce tension or relieve depression.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	<u>Narcotic Antagonists</u> ● The antagonists have four basic clinical uses: - They are useful in the treatment of narcotics addiction; - They produce analgesis (a state of insensitivity to pain); - They can be used to diagnose narcotics; and - They are effective antidotes for narcotic analgesic intoxication (blocking of narcotics). <u>Acupuncture</u> ● The original method was to relieve the withdrawal symptoms of heroin and opium addicts through controlled electrical stimulation applied to acupuncture needles inserted at specific points in the "concha" region of the addict's ears. <u>Behavior Modification</u> ● This consists of linking a punishment to undesirable behavior (such as drinking or not engaging in social interaction), or a reward to desirable behavior (such as sustained abstinence or social interaction). ● The term "aversive" conditioning is often applied to the punishment approach. The techniques vary widely. ● Reinforcement of abstinence and social interaction has also been employed. <u>Education Training</u> ● Virtually all treatment programs educate the patient and the family regarding the syndrome of chemical dependency, i.e., early signs of chemical dependency, its effects on behavior and on the family, and the usual outcomes of the chemical dependency syndrome as intervention is instituted. <u>Occupational and Industrial Programs</u> ● Manifestations of chemical dependency usually appear fairly early on the job. Thus, work is a logical place to identify people at an early stage of drug dependency. ● The central figure in these programs is usually a chemical dependency counselor who works closely with union shop stewards, management, and the industrial health department (or private physician) in order to assess the patient, contact the family, and initiate treatment.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	<u>Self Help Groups</u> ● Alcoholics Anonymous - A.A. is a self supporting organization, the goals of which are essentially a return to abstinence and control over one's own life. ● Alanon and Alateen - Alanon is an AA-sponsored group for the close relatives or friends of chemically dependent persons (most members are spouses). Alateen is for the adolescent children of chemically dependent parents. - These groups provide invaluable support in helping the family through the crises associated with the chemical dependency syndrome and its treatment. <u>Technical Aids: Telephone Audiotape Videotape</u> ● The telephone has been used as a followup technique after residential therapy. ● Therapists have used this approach in rural settings where patients live a great distance from therapeutic resources and with the elderly or physically incapacitated who have difficulty coming to a treatment facility. ● Videotapes have been taken of patients in order to be viewed later by them. Events used for "videotape feedback" have included the patient's appearance and behavior while intoxicated, family conferences, psychotherapeutic sessions (either individual or group), and psychodrama. ● Audiotapes of psychotherapy sessions can also be reviewed by patients and later discussed with the therapist. <u>High Risk Group Activities</u> ● Such activities have been designed to bolster two deficiencies widely found among chemically dependent persons: 1) difficulty in trusting others; and 2) low self confidence. ● Ask the group if they have questions about the material presented thus far. If so, respond accordingly.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
60 minutes	<u>SMALL GROUP ACTIVITY: DECISION MAKERS AND VALUES CLARIFICATION</u> • Explain the purpose of the exercise as follows: - In this exercise, we are going to describe some potential problem situations concerning a person's abuse of drugs. You will break into groups of four, with each of you assuming the role of someone who is involved with the abuser in a different way. - Your task is to assess the situation; determine how you would respond (according to your role), and attempt to initiate some resolution of the problem. - Break into groups of four, attempt to find as much private space as possible and study your role and case sheet carefully. - You will have approximately 20 minutes to cover the discussion points on the role sheet and reach an agreement on a strategy. • At the end of the first exercise, discuss the concerns of the group. When the discussion seems ended, ask the participants to form different groups of four to address the second case. • At the end of the second exercise, discuss the similarities or differences between Joe's and Sarah's case. - Ask participants if their values were involved to any degree in assessing and responding to these two persons. • Ask if the participants see any significant differences in subjective (involved) and objective (noninvolved) assessment of drug abuse problem situations.
5 minutes	<u>SUMMARY</u> • Summarize, stating the following: - Treatment is not the end of the road but rather the beginning of a process of turning an individual around from a self destructive existence to a productive, self sufficient life. - Treatment programs must help the ex-addict find and adopt alternatives to his old way of life. A range of rehabilitation options must be available to each client. Some individuals may need basic schooling, others vocational counseling or job training. Some may need transitional supported work while others simply need a job. Counseling that is goal oriented, realistic, on a positive level should reveal what a client needs.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	- The wide diversity of treatment methods reflects the present lack of precise knowledge of the nature of drug addiction and abuse. Uncertainty still exists regarding the causes, whether or not it is an "illness," and the degree to which the condition is physical or psychological. Policy-makers continue to debate these issues, others attempt through research to increase our knowledge of this complex social problem. - Meanwhile, even though treatment programs across the country are not "curing" some patients of the condition of drug dependence, nonetheless, for the majority, they are providing support and a marked degree of social rehabilitation and a better life. END OF MODULE 222

CASE # 1

Joe is 35 years old and a particularly well liked coworker. He is always entertaining to be with, helpful to friends in need, and a real "charmer." He is also a hard worker and pulls his share of the load - that is, on Tuesday, Wednesday and Thursday. In fact, he does his work so well that he almost makes up for those Mondays that he is bleary eyed or those Fridays that he seems to run out of steam early - that is, he's not really attending to his work. It is often necessary to check his work on Monday to prevent mistakes that might be visible to his superior. Recently he has begun to be somewhat irritable, and this is not characteristic. Joe has always been known as a boozier. He could really hold his liquor and was usually the life of the party.

CASE # 2

Sarah is a 25 year old employee who has been extremely friendly, cooperative, and conscientious in the two years she has been working for your company. For the last three months, however, her behavior has become increasingly erratic: coming in later, taking longer lunches, appearing alternately fatigued and hyper, and missing deadlines with her work. As long as you have known her she has been a moderate to heavy social drinker, frequently suggesting catching "happy hour" after work. According to the rumor mill now, however, she has become reinvolved with her old boyfriend who is reported to be a small time dealer, particularly of cocaine. In addition, there is some indication that she may have sold a small quantity of drugs to another person in the office.

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ROLE SHEET #1

One of you is a coworker of Joe's and has been for five years; another is his supervisor; another is an employee who does not know Joe personally and is therefore not emotionally involved; and the last is his spouse, brother or sister.

Now that you have your parts selected, discuss Joe's situation. The following are some guidelines:

- 1) Does it appear that Joe has a drinking problem?
- 2) Is it bad enough that it should be addressed? Explain.
- 3) Coworker: Do you feel that you should be talking about Joe's problem with his supervisor? If not, tell him why you should not. Have you ever tried to talk with Joe yourself?
- 4) Supervisor: Have you been aware of Joe's problem? Do you think that you have to deal with it or leave it alone? Are you comfortable discussing this with his coworker? Why?
- 5) Uninvolved party: Restate what you hear happening in the dialogue between the coworker, spouse, and supervisor. For example, are one or both protecting Joe? Do they seem to trust the goodwill of the supervisor?
- 6) Brother/Sister: Do you find it difficult to be objective about Joe's situation? Have you talked to Joe about it and what was the result?
- 7) All four:
 - a. Describe a strategy for helping Joe including whether or not he must seek treatment. What will you do if he refuses; how will you approach him?
 - b. Who will initiate the strategy?
 - c. What kinds of support will Joe need from any of you if he should go into treatment?
 - d. How might your strategy or attitudes be different if Joe were not a likeable, hardworking fellow?

ROLE SHEET #2

Select the roles similar to the ones used in Case #1 and in addition to the discussion questions proposed there, consider the following:

- 1) What has changed in the situation or your response to it now that illicit drugs may be involved?
- 2) How do you feel about Sarah as opposed to Joe?
 - a. Do you have more or less compassion for Sarah?
 - b. Are you more or less likely to get involved?
 - c. Is the focus of your concern Sarah's well-being or is it something else?
- 3) What is your strategy for helping Sarah?
 - a. Do you think she needs treatment, and if so, what type?
 - b. Do you see any correlation between the drinking and illicit drug taking behavior?

MODULE VII

PREVENTION APPROACHES AND STRATEGIES

PERSPECTIVE

This module explores the goals, perspectives, and history of drug abuse prevention. It emphasizes the role of school, family and community in responding to the skills and needs of youth. It explores criteria for effective prevention strategies and alternative approaches to drug abuse prevention.

The structured experience allows the participant the opportunity to apply the material presented by developing a preliminary prevention strategy.

(Note: The module emphasizes prevention and youth. Trainers are instructed to adapt material in discussions of other groups, e.g., the older citizen.)

OBJECTIVES

- Identify appropriate goals of prevention.
- Develop and list the four major perspectives of drug abuse, outlining the goals, emphasis, and drawbacks of each.
- Classify and identify scare tactics, drug specific, non drug specific, cognitive, and affective approaches to drug prevention.
- Identify at least five factors that should be considered for effective prevention education.
- Identify the role family, school and community play in developing and incorporating the skills of valuing, decision making, communication, responsibility and success, in their respective systems.
- Define by listing, the assumptions and goals of alternative activities.
- Classify alternative activities and the skills, needs, and aspirations that alternative activities might satisfy.

CONTENTS

- Overview (10 minutes)
- Lecture/Discussion: Perception of Drug Abuse (30 minutes)
- Lecture/Discussion: The Prevention Strategy (30 minutes)
- Lecture/Discussion: The Role of Family, School and Community (30 minutes)
- Small Group Exercise: Skill Development for Prevention (30 minutes)
- Lecture/Discussion: Alternative Activities (30 minutes)
- Small Group Exercise: Culminating Experience (50 minutes)

TOTAL TIME: 3 hours 30 minutes

MATERIALS REQUIRED

- Large Group Room
- Break out space for small groups
- Newsprint
- Chart 1: Institution/Skill Chart

- Table Two: Levels of Experience and Examples of Alternatives to Drugs
- Masking tape
- Magic markers

Note: Trainers could prepare for presentation by making as many newsprint charts of the material as possible.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
10 minutes	<u>OVERVIEW OF MODULE VII</u> ● Review the objective of Module VII with the total group. ● Introduce the module by stating the following: - This module does not attempt to give immediate "magical" solutions to prevention of drug abuse. The variables of drug abuse prevention are so diverse that a simple formula for successful prevention is impossible. - The goal of this module is to present information and explore experiences that provide each participant with the opportunity to: - Identify, classify and expand their drug abuse prevention; - Develop skills (knowledge, information); - Test affective skills (attitudes and values); - Test personal perceptions with those of other participants. This training module is also intended to stimulate participants to seek further knowledge and other training and educational opportunities related to drug abuse prevention.
30 minutes	<u>LECTURE/DISCUSSION: PERCEPTION OF DRUG ABUSE PREVENTION</u> ● State the following: - The first step in effective problem solving is to <u>define the problem</u>. As previously illustrated we have had difficulty defining the terms—drug, drug use, and drug abuse. Example: "On March 22, 1973 the National Commission on Marijuana and Drug Abuse stated the term drug abuse has no functional utility and has become no more than an arbitrary codeword for that drug use which is <u>presently considered wrong</u>." Therefore, the confusion in defining drug abuse prevention is even greater. Defining drug abuse prevention - May confuse people, - Provide constraints, - Cause people to incorporate subjective emotional overtones. - Instead of defining drug abuse prevention, it is more useful to explore the goals and perspectives (point of view) of drug abuse prevention to attain a better comprehension of those activities we label <u>drug abuse prevention</u>.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	<u>GOALS</u> ● Many individuals use the terms <u>goal</u> and <u>objective</u> interchangeably. - A goal is a general statement of what we intend to do. - An objective is specific. It leaves little doubt about exactly <u>what</u> will be done, <u>how</u> this will be measured, and <u>when</u> it will be accomplished. Objectives lend themselves to measurement. ● In the following units the term <u>goal</u> will be utilized to avoid confusion. ● An imperative first step for drug abuse prevention is to determine the goals of the program. ● Ask Participants: <i>"What do drug abuse programs seek to prevent?" "What do drug abuse programs seek to change?"</i> <i>Write on newsprint:</i> STOP ALL DRUG ABUSE EXPERIMENTATION ● One major goal might be stopping all drug abuse experimentation. An emphasis on total abstinence in a society that holds conflicting and ambivalent attitudes about drugs, a society that Helen Nowlis (Office of Education) describes as "vastly over-dependent upon drugs of all types," is an unrealistic and hypocritical goal. Research has indicated that these approaches tend to alienate youth because they are not realistic. ● Ask Participants: <i>"What is an alternative?"</i> ● <i>Write on newsprint:</i> LIMITING DRUG EXPERIMENTATION TO RELATIVELY SAFE DRUGS ● A prevention program that advocates limited experimentation is also unrealistic. That program runs the risk of leading the "unprepared novice directly into serious dependency or abuse." It is also generally unacceptable to large segments of society (especially law enforcement). ● Additional goals that are appropriate (discussed under Prevention Strategy) are: - Preventing the experimenter from becoming the habitual user; - Preventing physical dependence; - Preventing psychological dependence; - Reinforcing the antiexperimenting tendencies of

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	nonusers of drugs; - Educating youths about drugs to assist them in making informal decisions on their own; - Making individuals aware of the complex interactions of drug use, social attitudes, and the law. ● According to Dr. Paul E. Robinson the goal is not to convince people not to use drugs, but rather help them to: - Think intelligently and rationally; - Control their destructive impulses; - Make wise decisions; - Resist peer pressure which endangers one's welfare or inhibits one's growth; - Understand their values, needs and desires; - Find nonchemical means of fulfillment and satisfaction. <u>Perspectives</u> <u>TRAINER'S NOTE:</u> <i>Outline the goal of each perspective, its orientation and its drawbacks. Note the emphasis on the moral/legal perspective; other perspectives are emphasized in the Lecture on Prevention Strategy.</i> ● State the following: - For an accurate perception of drug abuse prevention, it is important to understand the points of view outlined earlier in training and their relationship to drug abuse prevention. ● List perspectives on newsprint: 1. Moral/ Legal, 2. Disease or medical (public health), 3. Psychosocial, 4. Social and cultural. ● State the following: - There are additional perspectives of drug abuse, however, only these four will be reviewed here. Each perspective varies in its assumptions and has different implications for social action, education, treatment, legislation, policy formation, and prevention.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	<u>Moral/Legal Perspective</u> ● <u>Goal</u> - To keep specific drugs away from people. This is often referred to as prevention through prohibition and regulation. ● <u>Emphasis</u> - Many people are dissuaded from using certain drugs because of their illicit status. Legal prohibition has been a powerful deterrent with the possible exception of cases where a pattern of widespread use already existed (e.g., alcohol in the 1920's). Legal prohibition functions as a deterrent to use because of punishment or threat of punishment. ● Regulation and legal enforcement limits the availability of drugs and increases the cost of drugs. ● Several research studies have shown that availability is an important factor in determining whether patterns of use develop. ● <i>Write on newsprint:</i> <u>Moral/Legal Perspective:</u> Punishment or threat of punishment limits the availability of drugs and increases the cost of drugs. ● <u>Drawbacks</u> - Most of the early efforts to control drug abuse focused on law enforcement. It was believed that, if we could remove all drugs and drug abusers from the streets, the problem would be solved. - That law enforcement was not enough was implicitly acknowledged in the Drug Abuse Office and Treatment Act of 1972 which called for a balanced program to reduce both supply and demand for drugs. - In the White Paper on drug abuse, a report to the President in September, 1975 (Domestic Council Drug Abuse Task Force, Executive Office Building, Washington, D.C.) it was acknowledged that regulation and enforcement alone were inadequate and the need for a balanced attack on supply and demand was emphasized. Illicit drugs are likely to remain available for a long time. And, despite our efforts to treat and rehabilitate drug users, we now understand that once a person begins to abuse drugs, long term rehabilitation is both expensive and difficult. These sobering facts have convinced many experts that supply reduction efforts, even when coupled with treatment and rehabilitation, are not enough, and that ultimately the drug problem can only be contained through

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	effective education and prevention efforts. (Domestic Council Drug Abuse Task Force, Executive Office Bldg., Washington, D.C.) There are too many borders, too many fields, too many test tubes and Bunsen burners, too many pharmaceutical companies, to expect that even the most massive efforts at control and regulation will keep potential users from getting the drug they want and need. (Cohen and Resnick, 1976) - Another drawback of the moral/legal perspective is that: Punishment or threat of punishment is only successful if it speedily follows violations; and if it is applied to a sufficiently high percentage of the violations. As Helen Nowlis states, behavioral research, as well as, practical experience suggests that punishment and threat of punishment deter only to the degree that, and as long as, punishment regularly and speedily follows a sufficiently high percentage of the occurrences of the behavior to be deterred. <u>Summary of the Moral/Legal Perspective</u> ● <u>Goal</u> - To keep specific drugs away from people. ● <u>Emphasis</u> - Legal prohibition - punishment or threat of punishment. Legal enforcement limits availability of drugs; increases the cost of drugs. ● <u>Drawbacks</u> - Regulation and enforcement do not address the variable of demand. - Punishment and threat of punishment deter only to the degree that punishment regularly and speedily follows a high percentage of the behavior to be deterred, and as long as punishment regularly and speedily follows a sufficiently high percentage of the occurrences of the behavior to be deterred. <u>The Disease or (Medical Public Health) Perspective</u> ● <u>Goals</u> - Containment of known users to prevent them from "infecting" others; - Users are to be treated and cured as a medical problem; - Use is to be prevented as a public health problem; - Treated as an infectious disease.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	● <u>Emphasis</u> - This perspective emphasizes drug abuse education as its major prevention agency. It stresses information about risks in using particular drugs, and personal and social harm caused by becoming dependent on these substances. Example: The Surgeon General finds that smoking is hazardous to your health. ● <u>Drawbacks</u> - Drug prevention education of this perspective makes basic assumptions: That all or most individuals value and seek good health; fear and wish to avoid disease; and will therefore change patterns of drug use that may have been established over years. (e.g. alcohol and cigarette use. Education campaigns had limited success). <u>Psychosocial Perspective</u> ● <u>Goal</u> - Individual accepts responsibility (develops insights) of his or her drug using behavior and attempts to change. ● <u>Emphasis</u> - The individual is seen as active. Use and nonuse is seen as human behavior that is complex and variable. The meaning and function of the drug as well as the need that is satisfied by drug use is stressed. The mode of prevention is education: Drug specific and nondrug specific with an emphasis on values, needs, and behavior of the individual. ● <u>Drawback</u> - Decisions to use are often impulsive rather than rational, and are often influenced more by social factors than by information. <u>Social-Cultural Perspective</u> ● <u>Goal</u> - Change the environment and/or social economic conditions. ● <u>Emphasis</u> - The adaptation of the individual to the cultural and social context of his/her environment; - Factors in the social/cultural context should be adapted to the individual and his needs; - The way in which society defines and responds to drug use and users determines the orientation of individuals to drug use (e.g., differences in the responses of Eastern and Western cultures to drugs: Eastern - alcohol is legal; cannabis is illegal Western - cannabis (hash) is legal; alcohol is illegal) ● <u>Drawbacks</u> - Social and cultural changes often develop slowly and social/cultural institutions are often reluctant to change.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
30 minutes	When considering all of these perspectives in a drug abuse prevention strategy, it is imperative that all four points of view or perspectives be taken into consideration. Exclusive emphasis on drugs on individuals or on social and cultural aspects will almost certainly be ineffective. • State the following: • This unit gave you a general perception of drug abuse prevention by exploring some goals and perspectives. • Drug abuse prevention can be classified into three major approaches: 1. Prevention through prohibition and regulation as outlined in the Moral/Legal Perspective; 2. Prevention by education as utilized by all perspectives (the major emphasis being psychosocial) 3. Alternatives to drug use. Major emphasis on psychosocial, and social/cultural perspectives. <u>LECTURE/DISCUSSION: THE PREVENTION STRATEGY</u> • State the following: • History of Prevention - Society searched for that easy solution to the prevention of substance abuse. Initially we thought that if we showed frightening movies and told horror stories of drug abuse that people would be too scared to use drugs. Therefore, early drug education programs consisted primarily of information on the dangers of specific drugs - warnings of physical, social and psychological harm, and punishments for sale, use, and possession (e.g. "Reefer Madness" - a film that inferred that smoking marijuana would make you "mad," and end in arrest.) - This type of program was labeled "Scare Tactics." Similar programs were developed that Dr. Walter M. Mathews labeled as "converting" programs. They attempted to dissuade the adolescent (youth) from using drugs by directing, preaching, convincing and scaring. - Directing - Teacher tells the student what they must believe, value and do. - Preaching - Similar to directing, but adds an appeal to the students' duty to a vague external authority. - Convincing - Application of logic where lecturing was the method used. - Scaring - Emphasis on the dangers of drug use.

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	- Similar methods included an emphasis on the hazards of drugs to your health, admonishment, indoctrination, persuasion, distortion, and fear. - "Scare tactics" and similar approaches proved to be ineffective as a prevention strategy. Much of the information was invalid causing participants, particularly youth, to question the credibility of the presenters and the program itself. - We then thought that if we provided factual information about drugs ("drug specific" information that emphasized the drug and its pharmacology - the physical and psychological properties of drugs), that people would make responsible decisions about drug use. - These drug specific programs often had an adverse effect on prevention. Individuals began to regard drug use more favorably. The more knowledge people possessed about drugs, the more their attitudes were in favor of drug use. Some researchers even found that exposure to "drug specific" information resulted in an increase of drug use: straight information giving approaches have been previously shown to result in an increase, rather than a decrease of drug use. (J.D. Swisher, Weiner, and Herr, 1972.) - "Drug Specific" programs were thought to alleviate fears of drugs and to heighten curiosity, thereby leading to greater experimentation. Students often acquired the knowledge they needed to better attain the desired level of intoxication. - In April thru October of 1973, the then Federal Special Action Office for Drug Abuse Prevention (SAODAP) declared a moratorium on all prevention materials and activities. It was a period to regroup and evaluate our prevention strategies. - As a result of the moratorium, it became clear that scare tactics and drug specific information alone did not significantly deter drug abuse and were not effective strategies. - In 1974, Dr. DuPont, former director of the National Institute of Drug Abuse, surveyed drug education programs and concluded that the educators and students felt that the majority of existing drug education programs in their schools were ineffective and should be abolished. In a review of research on school based drug education programs, Michael Goodstadt concluded that: There is an almost total lack of evidence indicating beneficial effects of drug education; very few educational programs have been evaluated and almost none have shown any significant improvement in anything other than levels of knowledge;

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	attitudes and drug use have generally remained the same. (Schaps, Cohen, and Resnick, 1976). - There was a change in emphasis of drugs and drug information to an emphasis on people. A shift away from pharmacological effects to the meaning and function of drug use/abuse behavior. This new orientation focused on the whole person in his environment and life situation. - In 1974, the Prevention Branch of NIDA initiated a nationwide, 14-month modified "Delphi" policy planning process to develop a national strategy for primary prevention (involved over 400 prevention specialists in a series of nine planning conferences) - In 1975, the resulting recommendations were published in <u>Toward A National Strategy for Primary Drug Abuse Prevention, Final Report, Delphi II.</u> - As a result, primary drug abuse prevention was defined as: - A constructive process designed to promote personal and social growth of the individual to full human potential and thereby inhibit or reduce physical, mental, emotional, or social impairment which results in or from the abuse of chemical substances. - Further, the report established three basic <u>themes</u> for primary prevention: 1 Primary Prevention must be understood in terms of the development and reinforcement or positive behavior; 2 Primary Prevention Programs must be responsive, in both design and operation, to the needs of those they are intended to serve or support; 3 Primary Prevention Programs should, wherever possible, employ collaborative efforts in order to utilize the already available capacities and resources of existing human service institutions (Delphi II, 1975). - The first of these themes promotes the concept of developmental school and community based alternatives and educational programs that promote personal growth and responsible decision making. - Educational programs should provide for the integration of both cognitive and affective educational techniques. The cognitive approach increases knowledge of facts about substances and information pertaining to issues surrounding the use of substances. Facts and information can support efforts to develop a respect for substances, affect attitudes and aid in responsible decision making. These cognitive approaches would stress the development of knowledge, comprehension, application, analysis,

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	synthesis, and evaluation of drugs and drug abuse. - The effective component focuses on the individual's needs, feelings, and emotions. This approach includes skills and processes to: clarify values, improve decision making; improve self concept; increase the ability to communicate and relate more effectively alone and in groups; to solve personal and interpersonal problems; to effectively deal with feelings of anger, depression, anxiety; relax and enjoy daily activities; explore and participate in alternatives. - The integration of these two approaches provides individuals with knowledge and skills needed to build life processes where thinking and feeling are integrated. An individual can learn to understand his/her basic needs, develop a good self concept, make responsible decisions and discover alternatives to fulfill his or her needs. - Despite these changes drug abuse prevention is still considered to be ineffective. • Ask participants: "What are the reasons for the failure of drug education as a prevention strategy?" Record these reasons on newsprint, post newsprint where all participants can view them. <u>Effective Drug Prevention</u> <u>TRAINER NOTE:</u> Many of the requirements for effective Prevention were outlined by the Delphi II report. This segment attempts to detail some of the recommendations. • State the following: - There are numerous reasons, as your list (refer to newsprint) indicated, for the lack of effective drug prevention education. We will attempt to explore some of those reasons. <u>Responsibility and Motivation</u> (instead of convincing) • State the following: - Too often education in drug prevention still attempted to <u>convince</u> people not to use drugs rather than emphasizing those skills that would enable the individual to accept <u>responsibility</u> for drug use and be <u>motivated</u> to make wise decisions about drug use. - Dr. Schaps, Dr. Cohen and Henry Resnick, M.A., in their book <u>Prevention in Perspective</u>, state that the development of a sense of responsibility in the individual for his own behavior is a crucial factor in any prevention education program. - These authors acknowledge that information is a necessary component of prevention, but they emphasize the need for responsibility and motivation that will result in sensible and healthy decisions about drugs.

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	(e.g., "When the marijuana joint makes its way through a party or when members of the group suggest trying the latest drug, it is the individual who decides. All the collective superegos in his immediate world may not be strong enough to counter a response of 'why not?'") - Dr. Paul E. Robinson, as mentioned previously, outlined some goals for drug education that stress responsibility and personal motivation regarding drug use. - Review these goals: 1. Think intelligently and rationally about chemical use. 2. Control destructive impulses. 3. Resist peer or social pressure when it endangers one's welfare or inhibits one's growth. 4. Understand your values, needs and desires. 5. Exploration of nonchemical means of fulfillment and satisfaction (alternatives to drug use.) - In summary, an effective drug education strategy must stress responsibility and motivation. <u>Needs of Youth</u> (skills to attain those needs) ● An effective drug prevention strategy, must address the needs of youth and the skills to satisfy those needs. ● Skills that allow the youth to: - Achieve social, emotional and economic independence; - Develop one's own personal and sexual identity; - Develop interpersonal relationships; and - Acquire the maturity to accept responsibility. ● Skills that give youth a feeling of self worth and a positive sense of self (self esteem). ● Youth needs to develop: - A sense of trust—being able to trust and therefore making oneself vulnerable and open. - A developing sense of self as a unique, worthwhile individual with emerging talents, skills and abilities - A sense of self as an individual who can accomplish things. ● Youth who have positive views of themselves tend to act in ways that bring further success. They are able to persevere, to remain committed in the face of

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	stress and adversity. ● Interpersonal Relationships - Dr. William Glasser, in his book <u>Reality Therapy</u>, emphasizes the need for relatedness - having at least one close interpersonal relationship. ● He maintains that intimate, caring relationships are essential to growth and happiness. ● Eric Berne, in <u>Beyond Games and Scripts</u>, implies the same need for recognition or what he terms "recognition hunger," when he states, "If you are not stroked your spinal cord will shrivel up." (A stroke being any act implying recognition of another presence.) ● In summary, these are some basic needs and skills that should be addressed by a prevention strategy. <u>Community Needs</u> ● Just as drug prevention should address itself to the needs of youth, it should also meet the needs of the community. ● Prevention should take into account the needs and interests of members of the community and interface with community agencies. Commercial programs alone accomplish little; if used, they should be used as part of a comprehensive, locally developed project (Neil and Genderson, 1975). <u>Effective Education</u> ● Effective education, whether in the field of drug abuse or other fields, involves imparting information with communication. ● EDUCATION = INFORMATION + COMMUNICATION ● Any educational effort that provides only one aspect (either information without communication or communication without information) will usually be ineffective. ● Information must be: - accurate - presented in an unbiased fashion - establish which statements are opinions - identify the sources of information. ● Communication: - Credibility is a basic premise for effective communication. - Untruths, half truths, exaggerations and over-generalizations kill credibility.

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	- Basic to communication is a clear understanding of the goals and objectives of the program. - The characteristics of the message should be positive appeals rather than negative. - For naive audiences, cases should be made before mentioning or refuting the opposition. - For captive audiences, extreme positions should be avoided. - It is also important to know your target group - users, non users, fence sitters, individuals with high or low self esteem. <u>Material and Mode of Presentation</u> • The material and the way it is presented are probably the most important factors in determining the effectiveness of drug education programs. As previously stated, it should be appropriate to the audience and is effective to the degree that it meets the goals and objectives of the program. <u>Staff</u> • Staff should: - Be able to facilitate the attainment of the goals and objectives of the program. - Know the material well. - Possess the skills necessary for effective communication with and understanding of participants. - Be credible and gain the trust of participants. - Be individuals easily assimilated by the community or community staff. <u>Evaluation</u> • Evaluation is probably the strategy that is most ignored in drug education. Evaluation of training is frequently an afterthought--an activity added on to satisfy accountability requirements of users. When this occurs the results may yield unsound or unfair findings (NDAC, 1975). Few programs report any systematic procedures. An extensive review of over two hundred published accounts of drug education programs revealed 23 reporting any systematic evaluation and only 15 reported use of both pre and posttest treatment measures coupled with a control group to allow for a true comparison

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30 minutes	of effects. (Randall and Wong, 1975) ● A major goal of evaluation is to improve or redevelop programs to make them more effective and to determine if program goals and objectives were attained. The inability to <u>do</u> and <u>use</u> evaluations for improvement of prevention programs is a major reason for their lack of effectiveness. <u>Summary</u> ● An effective drug prevention strategy should: - Emphasize those skills that would enable the individual (youth) to accept responsibility for drug use and be motivated to make wise decisions about drugs. - Take into account the needs of individuals (youths) and the skills necessary to satisfy those needs. - Consider the needs and interests of the members of the community and interface with community agencies. - Develop efficient methods of education that will ensure good public information and communication. - Improve programs through evaluation technique to see that program goals and objectives are attained.
	<u>LECTURE/DISCUSSION: THE ROLE OF FAMILY, SCHOOL AND COMMUNITY</u> (<u>TRAINER'S NOTE:</u> <i>At the conclusion of the unit, participants will be asked to begin to outline the goals and activities that reinforce a skill for either the family, school or community</i>) ● State the following: - This is the most difficult unit to explore. The family, school, and community encompass a wide range of services and related variables, making it almost impossible to cover adequately. Yet, we cannot ignore these institutions because they are "the arena of drug abuse prevention." ● Give Instruction to Participants: - The purpose of this unit is to explore some basic skills that these institutions can emphasize. The unit will also give participants the opportunity to explore their perceptions and reactions to the role these institutions play in drug abuse prevention ● Family, school and community are often criticized for not developing skills and not satisfying needs that may prevent drug abuse. As a result, these institutions are often defensive of their role as social institutions, and are often the most difficult to effectively change. (As stated in Unit 2 - social/cultural institutions are reluctant to change.)

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	● The skills that family, school and community can stress include: - <u>Communication</u>: It is important for youth and individuals who are involved with youth (parents, teachers, counselors, etc.,) to actively and effectively communicate. It is therefore important for youth to develop skills in <u>articulating accurately</u> and developing awareness of the meaning and feeling of verbalizations. - <u>Valuing</u> (values clarification): Adolescence is a stage of constant change (both physiologically and psychologically), a time when values are influenced by peers (e.g., according to research, peer pressure is a major factor in adolescents' decisions to experiment with drugs); a time when values are constantly changing. Adolescents usually make decisions based on what they value at the moment. It is important for family, school and community to help adolescents recognize their own personal values and then to use these values in establishing clear objectives. It is suggested that family, school and community: - respond to values in a nonjudgmental manner—values being considered neither right or wrong - allow opportunities for youth to explore and express values. - <u>Decision making</u>: It is the responsibility of the family, school and community to assist youths in the development of skills to make well informed and well considered decisions about themselves, their education, their behavior and their future. Before decisions are made, other skills must be developed and reinforced. Such skills as: - gathering and evaluating information - identifying alternatives - learning about personal risk taking - developing decisionmaking strategies. These skills then need application: - practice in making decisions (e.g., decisions about jobs, education, relationships, family) - resolution of conflicts (e.g., thinking about some personal situation of some ambiguity in order to make a satisfying decision).

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
30 minutes	Research has indicated that "stress" is often related to making decisions. The "guilt" (past decisions) and "worry" (future decisions) of decisions are postulated to cause this stress. If youth developed the skills necessary to make decisions, this "stress" would be in perspective. A goal for the family, school, and community is to make youths to make youths participate in the process of decisionmaking and to assume effective roles in the family, school, and community. - <u>Success and Responsibility</u>: The developmental tasks of adolescence are facilitated when success and responsibility are reinforced. Family, schools, and community should emphasize the positive (instead of the negative) and build success into experiences. These institutions should allow youth the opportunity to develop and maintain responsibility, reinforce activities that promote responsibility and assist (trust) youth in the exploration of responsibilities. - <u>Needs of Youth</u>: Institutions should be responsive to the needs of youth (e.g., self esteem, interpersonal relationships) while maintaining the responsibilities of setting clear and consistent limits and the maintenance of a supervisory role (awareness of youth's activities). <u>SMALL GROUP EXERCISE: SKILL DEVELOPMENT FOR PREVENTION</u> ● <i>Review Unit Presentation</i> - This unit explored some skills that family, school, and community could stress to facilitate drug abuse prevention. ● <i>Explain the Goal of the Exercise</i> 1. Participants identify a skill that will be developed (for the institution they choose) (see chart 1) 2. Participants identify an institution, family, school, or community; explore for this exercise and Unit 6 - Culminating Experience. (see chart 1) 3. Participants identify some basic goals for the chosen skill and activities that would reinforce the development of that skill.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
30 minutes	● Give Instructions for the Exercise. - Allow participants to choose a skill area (communication, valuing, decisionmaking, success and responsibility, and needs of youth). - Break training group into five groups. - Instruct participants to: 1. Mutually decide to concentrate on one institution (family, school, community); 2. Identify some basic goals and activities that would reinforce the development of that skill. - State that this is to be approached as a brief planning session for the identification of areas to be explored in Unit 6 - Culminating Experience. - Entertain questions. - Bring groups back to large groups and have them report on their institution, goals and activities. - Summarize the report on Chart 1. <u>LECTURE/DISCUSSION: ALTERNATIVES APPROACH</u> ● State the following: - We have emphasized two basic approaches to Drug Abuse Prevention. 1. Prevention through prohibition and regulation (Moral/Legal Perspective) 2. Prevention by education 3. A third approach that has received a great deal of attention, that is often misinterpreted, is the Alternatives Approach. <u>Display and Explain the Outline of the Alternatives Approach:</u> <u>Outline</u> A. Assumption of Alternatives B. Goals of Alternatives C. Motivations and Needs D. Review of Alan Cohen's Table - Levels of Experience and Examples of Alternatives to Drugs (Table 2) E. Nature of Alternatives F. Alternative Activity Programming

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	• <i>State the following:</i> A. Assumptions about Alternatives There are three basic assumptions of alternative activities: 1. People take drugs because they want to. 2. Drugs give relative satisfaction in some area of a person's life. 3. People will stop taking drugs if they find something better. B. Goals of Alternatives Alternatives are not a means to end drug use and/or experimentation. They are also not a substitute; to be effective, an alternative must be a more desirable involvement than the drug experience. An effective alternative will look to the motivation and needs that an alternative satisfies and attempt to meet those motivations and needs nonchemically. C. Motivations and Needs Alternatives may be meaningful for some and irrelevant to others. The orientation of alternative activities is to identify the needs and motivations that are to be satisfied by the alternative activity and then develop an alternative program for the individual. The needs that can be met by alternative activities (that are often met by drugs) are: <u>TRAINER'S NOTE:</u> <i>Trainer should review these lists of needs and discuss them with participants, giving examples when appropriate.</i> - Improvement in self esteem - Finding self understanding - Improved self image - Individual identity and independence - A sense of purpose - Active participation and involvement with tasks (commitment) - Active participation and involvement with others (commitment) - Feeling of significance

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	- A creative use of time - Opening up to new forms of personal and group experiences - Expanded awareness of new experience - Reinforcement of success D. Review of Alan Cohen's Table - Levels of Experience and Examples of Alternatives to Drugs (Table 2) <u>(TRAINER'S NOTE: Refer to Table Two of Cohen's article.)</u> Alan Cohen, in his article "Alternatives to Drug Abuse - Steps Toward Prevention," compiled a table that serves to outline the <u>type of gratification, the corresponding motives, needs and aspirations</u> of the individual and examples of <u>alternatives</u> that will satisfy those motives, needs and aspirations. <u>BACKGROUND TO TRAINER:</u> Cohen's list is a general attempt at classifying alternative approaches. It only serves to highlight types of alternatives that correspond to the experience and satisfy the needs. For an additional listing of other alternatives, refer participants to the bibliography. <i>Review some of the categories that Cohen outlines with participants.</i> E. Nature of Alternatives Drug use is essentially a "passive" activity. The individual "takes in" the effect with little effort. With alternative activities, the individual must take an active role. Energy is often required in the search for the alternative that offers success, and is appropriate to the individual's needs, motives and aspirations, (e.g., "What do you wanna' do?" I don't know—what do you wanna' do?") A crucial factor in successful alternative programming is involvement and motivation. Alternatives must also be <u>realistic, obtainable and meaningful.</u> ...alternatives to be more effective as they call for activity, assertion of will, effort and commitment, and less successful as they construe the target individual as the passive recipient of some input...The content of the alternative pursuit may be less important to the individual than the process of finding it or developing it. (Milwaukee Council on Drug Abuse, STASH capsules, Vol. 8, No. 4, 1976) Use of drugs and alternative:

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	The use of drugs during an alternative activity would mask the effect of the activity. For alternative activities to be effective, the individual must experience the activity and the satisfaction of needs without the use of the drug. Many alternative activities require a period of non drug use (purification) prior to the activity in order to obtain the full effect. Example: (e.g., transcendental meditation requires no drug involvement two weeks prior to training.) F. Alternative Activity Programming <u>TRAINER'S NOTE:</u> Review the following points: Effective alternative programs should: - be well organized - have effective leadership - be capable of working within the social and political atmosphere of the community - evaluate the community, individual, and the target population's needs - involve the target population in planning. Alternative activities programs should result in: - diminished drug abuse - improvement of target population's social problems - positive personal development of participants <u>Drawbacks</u> - Funding Alternative programs do not always fit well into the framework of disability-specific funding. Alternative programs are expensive (e.g., time for assessment, developing resources) - Evaluation is difficult. Large scale evaluations are extremely expensive and not always appropriate for a local program; small scale objective evaluations are often misleading or inconclusive subjective evaluation measures are just that—subjective.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
50 minutes	<u>SMALL GROUP EXERCISE: CULMINATING EXPERIENCE</u> ● <i>Explain the purpose of Culminating Experience:</i> - The purpose of this experience is to allow participants the opportunity to apply the material presented in this module. Applicants should have the flexibility to explore their own interest within the guidelines of the culminating experience. ● <i>Review:</i> - The classification of prevention strategy - Institution, skill, goals and activities outlined in the small group exercise of Unit 4 (use Chart 1) ● <i>Instruct Participants:</i> 1. Further outline the goals of their prevention activity. Remember that goals are to be <u>appropriate, realistic and obtainable</u>, while taking into account the skill to be explored. 2. Develop a general description of the activity(ies) 3. Develop a general description of the procedure - steps for planning - steps for implementation - evaluation procedure ● <i>Explain the Guidelines:</i> 1. The strategy should be developed despite the time constraint and approached as a creative learning experience. 2. It should be viewed as an opportunity for participants to explore creative ideas and get feedback on those ideas. 3. The participant should try to build into the strategy those qualities that have been reviewed as effective prevention. Participants return to their original small groups (Unit 4 - Small Group). Participants complete the tasks outlined. Participants return to the large group and summarize strategy. Other participants give feedback.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
5 minutes	(<u>TRAINER NOTE</u>: Outline the principles of feedback.) - o Give the Final Summary : - Summarize the module by utilizing the Trainer Outline of each unit. Refer participants to resource material and bibliography. Entertain any remaining questions.

CHART 1

INSTITUTIONS	FAMILY	SCHOOL	COMMUNITY
SKILL			
COMMUNICATION			
VALUE (Values Classification)			
DECISION MAKING			
SUCCESS & RESPONSIBILITY			
NEEDS OF YOUTH			

Table Two
Levels of Experience and Examples of
Alternatives to Drugs

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Alternative Example
A. Physical:	Physical relaxation	1) Relaxation exercises; "hatha" (physical) yoga
	Relief from pain or anticipated prevention of sickness	2) Dance and movement training
	Increased physical energy, avoidance of fatigue	3) Training in preventive medicine; positive health habits
		4) Dietary and nutritional training and habits
		5) Physical recreation: competitive athletics (especially for fun); individual physical conditioning (e.g., jogging, exercise); hiking, nature study, certain outdoor work, etc.
		6) Gentle addiction withdrawal

TABLE TWO (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Alternative Example
A. Physical: (Continued)		7) Experience and training in the martial arts, e.g., aikido, karate, judo
B. Sensory:	Intensification/enrichment of sensory input (e.g., sound, sight, touch, etc.)	1) Sensory awareness training (including increased awareness of body position, balance, coordination, small muscle control, learning to diminish or intensify sensory input)
	Enhancement of sexual experience	2) Massage
		3) Visual exploration of nature
		4) Responsible sexuality (e.g., possible education in noncoital sexuality for adolescents)
C. Emotional:	Psychological escape or release from emotional agony	1) Competent, empathic individual counseling
	Reduction of normal tension, anxiety, conflict	2) Competent, empathic group psychotherapy
	Emotional relaxation	3) Special therapeutic techniques, e.g., psychodrama and role-playing (expertly conducted)
	Mood alteration	
	Desire for psychological/emotional insight	

TABLE TWO (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Alternative Example
C. Emotional: (Continued)	Avoidance of decision-making; pressure avoidance	4) Instruction in the psychology of personal development (e.g., in secondary schools)
	Desire for privacy, aloneness	
	Rebellion; assertion of independence or defiance of authority	5) Effective education (including techniques like values clarification, especially in primary grades)
	Intensification of personal courage	
	Increase in self-esteem	6) Emotional awareness exercises, e.g., learning body language, honest, open self-awareness; psychological awareness workshops and seminars (especially for adults)
D. Interpersonal:	Gain in peer recognition, as in "showing off"	1) Creation of alternate peer groups
	Gain in peer acceptance, as in behaving according to "peer pressure"	2) Competently run, empathic experiences in peer and group process (including group discussion, sensitivity and encounter groups)
	Relaxation of interpersonal inhibition; facilitation of social interaction	3) Competent, empathic group psychotherapy
	Reduction of anxiety-provoking intimacy	

TABLE TWO (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Alternative Example
D. Interpersonal: (Continued)	Reduction in barriers to communication; also solution of interpersonal problems	4) Various "experiences in being," including interpersonal workshops aimed at development of caring, personal responsibility, confidence, trust and respect for others
	Escape/release from family difficulties	
	Escape/release from feelings of loneliness, alienation	
	Establishment of feeling of "community" or belonging with actual or reference group	5) Psychodrama, role-playing and other special techniques (expertly conducted)
		6) Competent, empathic individual counseling for interpersonal troubles
		7) Goal-directed, positive group activities through organizations such as Scouts, 4-H, F.H.A., school clubs, church organizations, etc.
		8) Social confidence training; instruction in social customs, "manners" of human interaction (especially for shy children)
		9) Self-examination of relationships
		10) Family life education and training

TABLE TWO (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Alternative Example
D. Interpersonal: (Continued)		11) Family therapy, family counseling, parent education 12) Premarital and marital counseling/ education 13) Temporary alter- nate families, al- ternate foster homes 14) Emotional "tutor- ing," e.g., big brothers and sis- ters helping younger people 15) Creation of com- munity "rap cen- ters"
E. Mental- Intellectual:	Reduction of boredom Curiosity Enhancement of learn- ing processes Problem-solving, especially technical Research on oneself, one's cognitive pro- cesses Mental fatigue avoid- ance, as in studying	1) Mental/intellectual hobbies and games; e.g., puz- zles, chess, etc. 2) Intellectual ex- citement through reading and dis- cussion 3) Intellectual chal- lenge through education, explor- ing frontiers of knowledge, stimulating curios- ity 4) Introspection; analysis of thought

TABLE TWO (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Alternative Example
E. Mental- Intellectual: (Continued)		5) Memory training 6) Training in problem-solving and decision- making, e.g., "Synectics" train- ing 7) Concentration and attention ex- ercises 8) Training in mind control, e.g., "psycho- cybernetics," auto suggestion, posi- tive thinking, etc.
F. Creative- Aesthetic:	Increase in creative performance ability Increase in enjoyment of artistic productions Creation of subjective states of fantasy or im- agination	1) Non-graded in- struction or ex- periential oppor- tunity in apprecia- tion of artistic productions, e.g., music, art, drama, etc. 2) Opportunities for artistic participa- tion, e.g., non- graded lessons in art, music, drama, etc. 3) Creative hobbies (e.g., crafts, sew- ing, cooking, gar- dening, handi- work, photog- raphy, etc.)

TABLE TWO (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Alternative Example
F. Creative- Aesthetic: (Continued)		4) Experience in communication skills, e.g., writing, public speaking, media, conversation, etc. 5) Theater games; other procedures encouraging imagination and creative fantasy 6) Creation of community centers for the arts
G. Experiential:	Desire for "pure pleasure," "fun," recreation Nonspecific changes in consciousness or awareness; e.g., any "high," intoxication for its own sake, desire for a change, any change, in experience Unusual distortion of the sensorium, "freaky" perception and associated experience Engagement—the need to be personally and totally involved in the moment, whatever the experience; counteracting apathy and ennui	1) Self-generated play experience 2) Experiments in sensory deprivation 3) Bio-feedback training, e.g., alpha wave training 4) Sleeplessness & fasting (natural procedures for "intoxicated" states, only with health parameters) 5) "Mind-tripping," e.g., guided daydreams and fantasy 6) Hypnosis (expertly conducted)

TABLE TWO (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Alternative Example
H. Stylistic:	Need for identification through <i>imitation</i> , by youth of adults, by adults of youth, from media and subcultural "hero" figures; peer imitation Automatic chemical reliance,—i.e., the culturally infused style of substance ingestion for any perceived deficiency Desire for <i>immediacy</i> of achievement; impatience, intolerance of delay of gratification	1) Exposure to others deeply and meaningfully involved in non-chemical alternatives 2) Exposure to "hero" figures unfavorable to chemical abuse 3) Enlistment in anti-drug or alternative programs 4) Exposure to philosophy of enjoying the <i>process</i> of attainment, not just the <i>product</i> 5) Parental abstinence and moderation in drug use (parent agreement to cut down to give better example to children) 6) Exposure to philosophy of the "natural," education regarding the artificiality of chemical dependence
I. Social-Political:	Identification with anti-establishment forces Rebellion against disliked laws	1) Partisan political action, e.g., helping candidate campaigns

TABLE TWO (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Alternative Example
I. Social- Political: (Continued)	Overcoming discouragement or desperation with social-political future	2) Non-partisan lobbying, e.g., for ecological projects
	Induced change in mass consciousness, sometimes by attempted disruption of "the system"	3) Personal political involvement, e.g., running for elective or organizational office
		4) Field work with politicians and public officials
		5) Involvement in social service, including:
		a) Providing voluntary service to the poor (e.g., day care for working mothers, helping to locate housing, assisting access to health services, etc.)
		b) Providing companionship to the lonely, (e.g., companions for the aged, foster children, prison inmates, etc.)
		c) Work with schools (e.g., student tutoring programs,

TABLE TWO (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Alternative Example
I. Social- Political: (Continued,		volunteer teaching assistants and counselors, etc.)
		d) Work with drug abuse problems (e.g., peer or volunteer counseling, information provision)
		e) Work in preserving environment (e.g., recycling, identifying pollution, preservation of areas of natural beauty)
		6) Participation in ACTION (e.g., VISTA and Peace Corps)
		7) Citizen "potency" training (i.e., learning effectiveness with Government and bureaucracy)
		8) Voluntary efforts through organizational sponsorship, e.g., YMCA, Boys Clubs, Big Brothers, etc.
		9) Construction of responsible roles in community organization and governance for young people.

TABLE TWO (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Alternative Example
J. Philosophical: (General and Personal)	Search for purpose and meaning in life	1) Seminars, work- shops on values and meaning of life (adults)
	Organization of ex- perience into a belief structure	2) Courses on val- ues, ethics, moral- ity, meaning, etc. (schools)
	Search for personal identity	3) Reading philosophical lit- erature
	Creation or change in values and philosophi- cal lifestyle	4) Values clarifica- tion procedures; identity clarifica- tion procedures
	Overcoming frustra- tion from lack of mean- ingful vocation and work	5) Exposure to philosophical (non-violent) as- pects of martial arts, e.g., aikido and karate
		6) Exposure to metaphysical lit- erature and thought
		7) Humanistic coun- seling oriented toward meaning and values clarifi- cation
		8) Achievement val- ues, from mean- ingful challenge from career or employment
		9) Exposure to indi- viduals committed

TABLE TWO (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Alternative Example
J. Philosophical: (General and Personal) (Continued)		to varieties of personal philosophies
		10) Creation of com- munity "growth centers"
		11) Maximization of ethnic, racial and minority pride
K. Spiritual- Mystical:	Desire for intense spiritual experience, often labeled "higher levels of conscious- ness"	1) Study of spiritual literature; in- creased library holdings relevant to non-chemical spiritual methods
	Desire for specific mystical states, e.g., "enlightenment," communication with God, etc.	2) Creation of infor- mation centers for spiritual alterna- tives
	Overcoming frustra- tion with organized re- ligion	3) Exposure to holy men of different belief systems; exposure to dif- ferent techniques of applied spiritu- ality
	Augmentation of unor- thodox spiritual methodology, e.g., yoga, meditation	4) Meditation
	Pertaining to the ex- perience of a guiding philosophy of life, an explanation of the uni- verse; also personal identity, including goals, purpose, and values	5) Yoga (especially non-physical components)
		6) Contemplation and prayer
		7) Spiritual dance and song

TABLE TWO (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Alternative Example
K. Spiritual- Mystical: (Continued)		8) Increased course offerings in intellectual and experiential components of spiritual study (especially college level and secondary level)

L. Miscellaneous:	Need for risk-taking, danger	1) Sky-diving; scuba-diving, etc.
	Need for adventure, exploration	2) "Outward Bound" survival training
	"Vacuum phenomenon," or "What else is there to do?"	3) Exploration of new physical environments, e.g., flying, soaring, camping in wilderness areas, etc.
	Economic profit	
	Combination of motives, needs, aspirations—none of which individually would produce drug abuse, but does in a cluster	4) Competence of "self-reliance training," e.g., vocational and occupational education, instruction in household technology (i.e., autos, electronics, plumbing, household appliances, etc.)
	Need to react to extreme mental or physical discomfort; e.g., as in the maintenance of narcotic addiction, or in extreme psychological pain and/or confusion	5) Family management education, i.e., accident prevention, childcare, money management, first aid, menu and diet planning, etc.

TABLE TWO (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Alternative Example
L. Miscellaneous: (Continued)		6) Vocational counseling leading to meaningful employment
		7) Credited work experience through schools, e.g., house-building, merchandising, service station maintenance, restaurant training, etc.

MODULE VIII: CLOSURE AND EVALUATION

PERSPECTIVE

This module attempts to provide closure and direction for participants. They are directed to complete the evaluation forms and posttests. They are also directed to the additional training courses offered by NDAC and RSCs.

CONTENTS

Overview of Module VIII (5 minutes)

Review of Modules I through VII (10 minutes)

Posttest (30 minutes)

Closure: Certificates and Departure (10 minutes)

TOTAL TIME: 1 hour

OBJECTIVES

1. To determine if participants' original goals and questions were fulfilled.
2. To recognize the additional training courses offered by the National Training System.

MATERIALS REQUIRED

- o Total group meeting space
- o Posttest instructions and answer sheets
- o Pencils
- o NDAC training program information booklet
- o Certificates

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
5 minutes	<u>OVERVIEW: MODULE VIII</u> • Review the goals of Module VIII with the whole group. • Explain the sequential flow of the module, highlighting: - Total group activities - Posttesting
10 minutes	<u>LECTURE: REVIEW</u> Review the previous modules, giving a brief description of the facts and issues that were explored. • State the following: <i>Module I: Introduction and Orientation</i> provided for initial development of the training group and assisted participants in discussing training needs, expectations, and goals. <i>Module II: Perspectives on Substance Use and Abuse</i> provided a general conceptual framework from which to consider substance use, and against which to identify and clarify personal beliefs, attitudes, assumptions, and misconceptions. <i>Module III: A Social and Historical Context For Understanding Substance Use and Abuse</i> discussed historical and cultural trends of substance use and the themes of social and legal responses to substance use. <i>Module IV: Substance Actions, Hazards, and Benefits</i> examined pharmacology with a focus on the potential hazards and possible benefits of substance use. <i>Module V: Understanding the Phenomenon of Substance Abuse</i> discussed the causation and patterns of substance use and examined some of the consequences of abuse, with a particular focus on the disease model of Alcoholism. <i>Module VI: Treatment Approaches to Substance Abuse</i> presented the variety of modalities and techniques utilized in substance abuse treatment with an emphasis on treatment of alcoholism and heroin addiction. <i>Module VII: Prevention Approaches and Strategies</i> focused on prevention efforts in terms of diversity and viability of various approaches and the involvement of family, community, schools, and peer groups. <i>Module VIII: Closure and Evaluation</i> marks the end of this course. At this point, we should evaluate what we have learned about drugs and drug abuse. Some will find that the information supplied here is sufficient for their purposes; others will have a need or desire to pursue certain aspects beyond the scope of <i>Drugs in Perspective</i>. For those who are interested, additional courses are available

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	from NDAC on subjects such as drug education, drug abuse prevention, drug abuse treatment, and rehabilitation.
	<u>STRUCTURED EXERCISE: ACTION PLANNING AND ASSESSMENT</u>
1 hour	TRAINER'S NOTE: Have participants review the following material before developing an action plan.
Action Plan -Review-	State the following: Now that we are at the end of this course, it might be a good idea to review and make any changes on the following:
5 minutes	1) Personal Goal-Setting Exercise from Module I Perhaps your goal formulation and payoffs have changed, if so, make a mental note of them.
5 minutes	2) Historical/Cultural Beliefs About Substances from Module III Perhaps your response in question #7, "Generally my attitudes towards drugs/alcohol have become _____," has changed, if so, make a mental note of it.
5 minutes	3) Clarifying Exercise: The Fifth Perspective - Personal Historical Beliefs and Feelings Perhaps your response to the issues presented in the four perspectives have changed. If so, make a mental note of it.
Total Time: 15 minutes	
15 minutes (optional) structural activity	• Have participants complete the professional strengths worksheet individually. • Have participants fill out the individual action plans. • When action plans are completed move participants into small groups of fours or fives to share plans. • When this task is complete, have participants share at least one positive attribute about group members, that they have noticed.
15 minutes	
15 minutes	<u>OPTIONAL</u> TRAINER'S NOTE: Have participants separate into small groups (threes or fours) and discuss the changes in perceptions, if any, that they have about the three reviewed exercises.
30 minutes	<u>EVALUATION AND POSTTEST</u> NOTE: The purpose of evaluation is to obtain feedback from participants to determine effectiveness of: course content, procedures, and staff. • Explain the purpose of evaluation and posttest.

TIME/MATERIALS	TRAINER ACTIVITIES OUTLINE
	• <i>Instruct participants to complete the evaluation forms.</i> • <i>Explain the purpose of evaluation and posttest.</i> • <i>Instruct participants to complete the evaluation forms.</i> • <i>Distribute NDAC or RSC course booklet.</i> • <i>Administer posttests (See Testing Instructions in the Trainer's Manual, page E-3).</i> • <i>At the end of 30 minutes, collect the posttests.</i> • <i>Distribute training certificates and thank the participants.</i> END OF MODULE

PROFESSIONAL STRENGTHS WORKSHEET

1. Background and Training:

List the three most significant experiences which have prepared you for your current position.

2. Task Oriented Skills

What are the job related areas in which you are most proficient?

3. People Oriented Skills

Name three ways in which you work well with other people.

4. Beyond the Call of Duty

What are some strengths you bring out in response to crisis or stress situations?

5. Recognition

Name three people who give you positive feedback about your strengths in your present position.

6. Achievement

Briefly describe some specific accomplishment you are proud of in your present career.

7. What You Take With You

What experiences, information, views have you gained from this course?

ACTION PLAN

STEP 1.

- a. As a result of your attending this course clearly identify and describe the change you now want to make.

- b. Clearly define the reason you want to make the change.

STEP 2.

- a. Specify whether you do (or do not) anticipate resistance to the change(s).

- b. Identify where the resistance will come from and the underlying reason. (Either within yourself or outside yourself.)

STEP 3

- a. Identify strategies you might employ to overcome resistance.

STEP 4.

- a. Identify the degree of success you expect to have in accomplishing the desired change. (Circle one.)

1 2 3 4 5
Very Probable Improbable

APPENDIX

EVALUATION AND TESTING FOR DIP COURSE

This section describes the development of the tests, *Form A* and *Form B*. Following the description are instructions for using the participant evaluations and for administering the test. Finally, the section contains the answer keys to the tests, answer sheets, and the tests themselves.

DEVELOPMENT OF THE PRETESTS AND POSTTESTS

Pretests and posttests developed for *Drugs In Perspective* had to meet three requirements. First, and most important, each item was to measure a specific course objective. A test meeting this condition can be used to measure the extent to which students have mastered the intended skills, attitudes, and knowledge.

A second requirement was that instruments would measure the trainees' ability:

- to interpret situations--in terms of the principles taught;
- to apply those principles to specific management situations;
- to recall the specific principles themselves.

Third, the test had to be one that could be scored objectively, quickly, and easily. There is a vast body of research literature that suggests that this requirement is virtually impossible to achieve through open-ended (free-response) items. This requirement, then, suggested some form of force-choice instrument. To meet these requirements, it was decided to design a test containing multiple choice items. The specific objective to which each item applied would be identified. Each item would also be identified as measuring knowledge at one of three levels of sophistication:

- Simple recall of material contained in the course.
- Interpretation of situations and actions in terms of principles contained in the course.
- Application of those principles to problem situations.

It was decided that one-half hour would be available for testing at the beginning and end of the course schedule, suggesting that approximately 20 items for each test could be included.

Items appropriate to each objective were written and assigned to one of the three levels of sophistication, according to the type of problem to be solved. Preliminary items were reviewed for accuracy, and to ensure that only one response was correct. Members of the National Drug Abuse Center staff reviewed the tests; based on their comments, items were revised where required. Two forms of equal length, with the same number of items, measuring each level of knowledge of each objective, were developed.

INSTRUCTIONS FOR TEST ADMINISTRATION

Either *Form A* or *Form B* can be used as a pretest, with the alternate form as a posttest. One form should be used for all participants, as the pretest, and the other as the posttest. When you administer the pretest, inquiries about test items should not be answered. It should be explained that the course will provide the answers in a way that will enable participants to understand what is correct, and, more important, why it is correct. After posttesting, feel free to discuss any and all items on either the pretest or the posttest.

Instructions should be verbalized as printed below. The time allowed to complete the test is 30 minutes.

INSTRUCTIONS

This test contains multiple choice questions. On the answer sheet darken with a pen or pencil the letter that best answers the question.

Pretraining Questionnaire*

and

Registration Form

* Note to trainer: Following are a Pretraining Questionnaire and Registration Form designed to be sent to prospective participants at least one month before training to help you determine if they need this course and to help you gear training to the participants' level.

REGISTRATION FORM

DRUGS IN PERSPECTIVE COURSE
PARTICIPANT INFORMATION FORM

Please complete all items:

1. Name _____
Last First Middle
2. Organization _____
Employer/Agency or Institution in which you work
3. A. Address (work) _____
No. Street City State/Zip
B. Address (home) _____
No. Street City State/Zip
4. Work Phone () _____ Home Phone () _____
Area Area
5. Your Position Title _____
6. Years in Occupation _____
7. Formal Education (check one)
Less than High School ___ High School or GED ___ Some College ___
Bachelor's Degree ___ Master's Degree ___ Doctorate ___
Major Field _____
8. Date of Birth _____
9. Training Dates _____ / _____ / _____
Month(s) Date(s) Year
10. Training Site _____
Meeting Site City State
11. Training Sponsor _____
State/Local Agency
12. Trainers for this Course _____
Lead Trainer/Co-Trainer

Co-Trainer/Facilitator

PRETRAINING QUESTIONNAIRE
DRUG & TREATMENT PROGRAM RATING SHEET

Rank these substances according to which substance you would most prefer information about. That substance you would most prefer information about should get a rating of (1). That substance which you would prefer the least information about should get a rating of (13). Do not duplicate any numbers.

Alcohol	()	Mescaline	()
Amphetamines	()	Methadone	()
Cocaine	()	Methaqualone	()
DOM (STP)	()	PCP	()
Heroin	()	Psilocybin	()
Inhalants	()	Tranquillizers	()
Marihuana	()	Other	()

Rank these treatment programs according to which program you would most prefer information about. That treatment program should get a rating of (1). That treatment program which you would prefer the least information about should get a rating of (12). Do not duplicate any numbers.

Crisis Intervention	()	Multi-Modality Treatment	()
Group Movements	()	Narcotic Antagonists	()
Mental Health (Inpatient)	()	Occupational Groups	()
Mental Health (Outpatient)	()	Religious Groups	()
Maintenance - Methadone	()	Self-Help Groups	()
Maintenance - Heroin	()	Therapeutic Community	()
		Other	()

C

TRAINER'S INSTRUCTIONS FOR SCORING THE
DRUG & TREATMENT PROGRAM RATING SHEET

1. Number each participant registration sheet.
2. Insert the rating for each substance and treatment under its heading, aligned with the participant's number.
3. Add the columns and put the total in the space "TOTAL."
4. Count how many participants rated the substances.
5. Divide "TOTAL" by the number of participants, and record the result as the mean.
6. Report the ratings to all staff members involved in training the course.

SCORING SHEET
Drug Substance Ratings (1st Half)

<u>Participant</u>	<u>Alcohol</u>	<u>Amphetamines</u>	<u>Cocaine</u>	<u>DOM (STP)</u>	<u>Heroin</u>	<u>Inhalants</u>	<u>Marihuana</u>
(1)	_____	_____	_____	_____	_____	_____	_____
(2)	_____	_____	_____	_____	_____	_____	_____
(3)	_____	_____	_____	_____	_____	_____	_____
(4)	_____	_____	_____	_____	_____	_____	_____
(5)	_____	_____	_____	_____	_____	_____	_____
(6)	_____	_____	_____	_____	_____	_____	_____
(7)	_____	_____	_____	_____	_____	_____	_____
(8)	_____	_____	_____	_____	_____	_____	_____
(9)	_____	_____	_____	_____	_____	_____	_____
(10)	_____	_____	_____	_____	_____	_____	_____
(11)	_____	_____	_____	_____	_____	_____	_____
(12)	_____	_____	_____	_____	_____	_____	_____
(13)	_____	_____	_____	_____	_____	_____	_____
(14)	_____	_____	_____	_____	_____	_____	_____
(15)	_____	_____	_____	_____	_____	_____	_____
(16)	_____	_____	_____	_____	_____	_____	_____
(17)	_____	_____	_____	_____	_____	_____	_____
(18)	_____	_____	_____	_____	_____	_____	_____
(19)	_____	_____	_____	_____	_____	_____	_____
(20)	_____	_____	_____	_____	_____	_____	_____
(21)	_____	_____	_____	_____	_____	_____	_____
(22)	_____	_____	_____	_____	_____	_____	_____
(23)	_____	_____	_____	_____	_____	_____	_____
(24)	_____	_____	_____	_____	_____	_____	_____
(25)	_____	_____	_____	_____	_____	_____	_____
(26)	_____	_____	_____	_____	_____	_____	_____
(27)	_____	_____	_____	_____	_____	_____	_____
(28)	_____	_____	_____	_____	_____	_____	_____
(29)	_____	_____	_____	_____	_____	_____	_____
(30)	_____	_____	_____	_____	_____	_____	_____
TOTAL	_____	_____	_____	_____	_____	_____	_____
Number of	_____	_____	_____	_____	_____	_____	_____
Objects	_____	_____	_____	_____	_____	_____	_____
MEAN	_____	_____	_____	_____	_____	_____	_____

SCORING SHEET
Drug Substance Ratings (2nd Half)

<u>Participants</u>	<u>Mescaline</u>	<u>Methadone</u>	<u>Methaqualone</u>	<u>PCP</u>	<u>Psilocybin</u>	<u>Tranquilizers</u>	<u>Other</u>
(1)							
(2)							
(3)							
(4)							
(5)							
(6)							
(7)							
(8)							
(9)							
(10)							
(11)							
(12)							
(13)							
(14)							
(15)							
(16)							
(17)							
(18)							
(19)							
(20)							
(21)							
(22)							
(23)							
(24)							
(25)							
(26)							
(27)							
(28)							
(29)							
(30)							
TOTAL							
Number of							
Subjects							
MEAN							

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SCORING SHEET Treatments (1st Half)

<u>Participant</u>	<u>Crisis Intervention</u>	<u>Group Movements</u>	<u>Mental Health (Inpatient)</u>	<u>Mental Health (Outpatient)</u>	<u>Maintenance Methadone</u>	<u>Maintenance Heroin</u>
(1)						
(2)						
(3)						
(4)						
(5)						
(6)						
(7)						
(8)						
(9)						
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(26)						
(27)						
(28)						
(29)						
(30)						
TOTAL						
Number of						
Subjects						
MEAN						

SCORING SHEET
Treatments (2nd Half)

<u>Participants</u>	<u>Multi-Modality Treatment</u>	<u>Narcotic Antagonists</u>	<u>Occupational Groups</u>	<u>Religious Groups</u>	<u>Self-Help Groups (AA)</u>	<u>Therapeutic Community</u>	<u>Other</u>
(1)	_____	_____	_____	_____	_____	_____	_____
(2)	_____	_____	_____	_____	_____	_____	_____
(3)	_____	_____	_____	_____	_____	_____	_____
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(29)	_____	_____	_____	_____	_____	_____	_____
(30)	_____	_____	_____	_____	_____	_____	_____
TOTAL	_____	_____	_____	_____	_____	_____	_____
Number of	_____	_____	_____	_____	_____	_____	_____
Subjects	_____	_____	_____	_____	_____	_____	_____
MEAN	_____	_____	_____	_____	_____	_____	_____

DRUGS IN PERSPECTIVE

Form A

Note: For the following items there may be more than one correct answer.

1. Which of the following is not a major perspective for considering substance use and abuse
 - a. moral-legal
 - b. psycho-social
 - c. socio-cultural
 - d. physical-psychological
 - e. public health-disease
2. The spectrum of drug use includes
 - a. socio-pathological use
 - b. regular use
 - c. experimental use
 - d. all of the above
 - e. none of the above
3. In the context of substance abuse "tolerance" refers to
 - a. parental attitudes towards substance use in their community or by their children
 - b. a user's ability to take heavy doses of drugs
 - c. an individual's ability to mix use of narcotics, depressants, and stimulants at the same time
 - d. a change in the dosage of a given drug required to produce its effects
 - e. an individual's orientation toward drugs
4. The classification hallucinogen includes
 - a. LSD-25
 - b. peyote
 - c. cocaine
 - d. naloxone
 - e. paraquat
5. The causes of substance use and abuse from a socio-cultural perspective do not include
 - a. breakdown of family unit
 - b. economic imbalance
 - c. influence of media
 - d. communist strategies to take over the world
 - e. rapid technologic change
6. The most frequently abused group of controlled substances in America today are the
 - a. hallucinogens
 - b. stimulants
 - c. sedative-hypnotics
 - d. depressants
 - e. narcotics

7. In the context of substance (drug) abuse, antagonism can be described as
 - a. the combined effect of two drugs being less than the effects of the drugs acting separately
 - b. the joint effect of two drugs being greater than the sum of their individual effects
 - c. a drug that produces negative side effects when taken with another drug
 - d. any drug that causes negative side effects; it is antagonistic to the individual taking the drug
 - e. any two (or more) drugs that cause the development of cross-tolerance
8. The major stages leading to addiction, outlined by Van Dijk, allows for
 - a. stopping practices at each stage and returning to earlier stages of drug use
 - b. maintenance of family support systems
 - c. psychological and physical differences in addiction
 - d. the utilization of coercive motivation
 - e. the utilization of supportive therapies
9. Definitions of "drug abuse" are
 - a. developmental and psychological in nature
 - b. objective with social influences
 - c. defined appropriately
 - d. legal in nature
 - e. often ill-defined and value-laden
10. One of the principle underlying the alcoholics anonymous approach to treatment of alcoholism is that the use of other drugs guarantees resumption of drinking

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11. The 1906 Federal Pure Food and Drug Act
 - a. required manufacturers to label all products containing opium, morphine, and heroin.
 - b. attempted to establish standards for manufacturers of tobacco and liquor
 - c. appointed the first commission to attempt to classify drugs
 - d. attempted to control the use and distribution of cocaine
 - e. required physicians to account for morphine use
12. One of the early phases of an alcoholic's movement toward recovery is characterized by feeling so good he begins to doubt he needs to continue treatment

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13. All of the following statements accurately describe treatment by methadone maintenance except:
 - a. Methadone is a narcotic antagonist
 - b. it is of relatively low cost
 - c. the majority of methadone patients come from minority populations
 - d. there are numerous side effects (constipation, weight gain, numbness, and hallucinations)
 - e. methadone patients sometimes abuse other drugs such as alcohol, barbiturates, and cocaine while undergoing treatment

14. Which of the following is not a commonality of alcohol and heroin
- when each substance first enters the body natural functioning of cells is upset
 - sudden withdrawal from each results in grand mal seizures and possibly death
 - effects of alcoholism and heroin addiction are felt by the user, families, employers and society as a whole
 - both substances depress the functions of the central nervous system
 - both can be used regularly without necessarily leading to addiction
15. Psychological dependence is characterized by
- onset of withdrawal syndrome after cessation of drug use
 - compulsive drug-taking behavior
 - need for continuous administration of a drug to avoid emotional and mental discomfort
 - use of drug without regard for its effect
 - loss of ability to distinguish right and wrong
16. Research findings and clinical work have
- shown simple and basic causes which initiate the process of pathological use of drugs
 - been minimal in the field of drug abuse
 - isolated and validated specific common factors related to drug abuse
 - shown one simple cause (dependency) of drug abuse
 - made it clear that a complexity of causes and conditions give rise to the drug-taking process
17. Early public awareness regarding marihuana (circa 1930s) was:
- molded by several scientific studies that presented evidence to substantiate the belief that it was a dangerous mind-altering and narcotic substance
 - hindered by its relatively benign effects
 - characterized by the relative absence of research causing much speculation about its nature
 - responsible for the adoption of the Marihuana Tax Act of 1937
 - heightened by the rising frequency of marihuana-related crimes, especially rape
18. One effect of barbiturate use on psychomotor functioning is
- incoordination
 - euphoria
 - increased visual discrimination
 - loss of memory
 - increased visual discrimination
19. The characteristics of psychological dependence vary according to the drug used as well as the user

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20. One of the possible consequences of chronic marihuana use is
- a. physiological dependence
 - b. psychological dependence
 - c. an overwhelming desire to loot
 - d. cirrhosis of the liver
 - e. bronchitis
21. The factors which are the primary in the current popularity of phencyclidine are
- a. low price
 - b. association with smoking marihuana
 - c. the chemical purity of the substance
 - d. high availability
 - e. lack of any known adverse effects of use

FORM B

1. One of the differences between heroin and alcohol is that continued use of pure heroin unlike alcohol causes little short or long term degeneration of body organs or tissues.

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2. Consequences of continued substance abuse may include
 - a. lack of individual freedom from the drug
 - b. social dysfunction
 - c. toxic psychosis
 - d. interference with natural ability of body to react disease
 - e. all of the above
3. Darvon, codeine, and methadone are examples of substances classified as
 - a. depressants
 - b. hallucinogens
 - c. stimulants
 - d. opiates
 - e. sedative-hypnotics
4. An example of an antagonist is:
 - a. methadone
 - b. milk
 - c. antabuse
 - d. marihuana
 - e. LAAM
5. Prevention based on the medical or public health model
 - a. relies on the containment of known users
 - b. rests heavily on punishment
 - c. emphasizes use or non-use as human behavior
 - d. stresses the social context of behavior
 - e. relies on the family
6. Identify the inaccurate statement:
 - a. Families provide role models
 - b. Peer groups aid in learning to relate to a variety of people outside of the family.
 - c. School provides the knowledge and skills needed for use in the world of work, family, and community.
 - d. The role of communities is difficult to define.
 - e. Dissemination of educational materials on drug abuse has been discriminate and applicable.
7. The existence of certain risk factors which can predict the onset of alcoholism is a criterion for labelling it a disease.

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8. The causes of substance use and abuse may include
- Erosion of confidence in government
 - Hereditary or genetic factors
 - Desire for an intense spiritual experience
 - a and b
 - All of the above
9. Identify the inaccurate statement:
- In 1961 and 1962, California and New York established statewide treatment programs.
 - After the passage of the Harrison Narcotic Act of 1914, the Federal Government encouraged large cities to establish temporary clinics for maintenance and gradual withdrawal of dependent users of opiates.
 - The explosion of drug addiction in the urban slums in the 1950s and 1960s led to a search for more effective treatment methods.
 - The Federal clinics at Lexington and Fort Worth were the only major opiate treatment facilities in the country until 1952.
 - In 1964, Nyswander and Dole began an experimental drug maintenance program in New York using group psychotherapy.
10. The therapeutic community
- has a high (75% the first month) drop-out rate.
 - is more efficient than other drug free methods.
 - mainly deals with the physical causes of addiction.
 - is less expensive to operate than drug free out patient programs.
 - is cost effective when analyzing its success rate.
11. Identify the vicious circle described by Van Dijk.
- Pharmacological
 - Ego Weakening
 - Social
 - a and b
 - all of the above
12. Marihuana, LSD, and STP are used as
- painkillers
 - intensifiers
 - polydrug
 - stimulants
 - depressants
13. Which one of the substances below is a hallucinogen?
- cocaine
 - methadone
 - amphetamine
 - PCP
 - heroin
14. The ingestion of alcohol causes a
- lowered tension level
 - heightening of the tension level
 - lowered tension level followed by a raised tension level
 - heightened tension level followed by a lowered tension level
 - no effect on the individual's tension level

15. Most drug laws in the U.S. prior to the late 1960s
 - a. recognized drug abuse as a medical problem.
 - b. were directed at punishing both the supplier and user of drugs
 - c. were enacted after clinical research had proven the danger of certain drugs
 - d. were successful in eliminating illicit drug use
 - e. concerned substances used by only a minority of the society
16. Motivating factors for using psychoactive substances may include
 - a. relief of pain
 - b. emotional or intellectual insight
 - c. avoidance of decision making
 - d. rebellion against disliked laws and social conversations
 - e. all of the above
17. Which of the following is a modality applicable in treatment of narcotic dependence
 - a. therapeutic communities
 - b. inpatient
 - c. drug free outpatient
 - d. methadone maintenance
 - e. all of the above
18. The use of methadone for the treatment of heroin addiction was initiated primarily because
 - a. Methadone unlike other narcotics has no debilitating side effects
 - b. The Federal government would be able to register and control all addicts in the country
 - c. Methadone alleviates the craving for heroin and thus allows the addict to become involved in a treatment regimen
 - d. Clients maintained on methadone will experience no withdrawal syndrome upon discontinuation of the drug
 - e. Methadone has the effect of heightening the clients awareness of the importance of social responsibility
19. One physiological effect of opioids
 - a. placebo effect
 - b. need to commit crimes in order to support the "habit"
 - c. cross tolerance to other opioids
 - d. delirium tremens
 - e. central nervous system hyperexcitability
20. One result of prohibitionist tactics with regard to drug abuse is
 - a. the acceptance of a concept of controlled use
 - b. the association of certain drugs with hated sub-groups in the society
 - c. the designation of user and supplier as victims
 - d. particular drugs become the subject of intensive research
 - e. the use of drugs is virtually eliminated
21. Physiological dependence is the inevitable result of the pharmacologic actions of certain substances given sufficient dosages and duration of use

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TEST FORM A

Name or I.D. Code No. _____ Check one: Pretest _____
 Course _____ Posttest _____
 Date _____
 Instructor _____
 Location _____

Darken with a pen or pencil the letter that best answers the question

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|---------------|---------------|
| 1. A B C D E | 16. A B C D E |
| 2. A B C D E | 17. A B C D E |
| 3. A B C D E | 18. A B C D E |
| 4. A B C D E | 19. T F |
| 5. A B C D E | 20. A B C D E |
| 6. A B C D E | 21. A B C D E |
| 7. A B C D E | |
| 8. A B C D E | |
| 9. A B C D E | |
| 10. T F | |
| 11. A B C D E | |
| 12. T F | |
| 13. A B C D E | |
| 14. A B C D E | |
| 15. A B C D E | |

TEST FORM B

Name or I.D. Code No. _____
 Course _____
 Date _____
 Instructor _____
 Location _____

Check one: Pretest _____
 Posttest _____

Darken with a pen or pencil the letter that best answers the question

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| 2. A B C D E | 17. A B C D E |
| 3. A B C D E | 18. A B C D E |
| 4. A B C D E | 19. A B C D E |
| 5. A B C D E | 20. A B C D E |
| 6. A B C D E | 21. T F |
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TEST KEY

FORM A

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| 1. | A | B | C | ▲ | E | 16. | A | B | C | D | ▲ |
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| 3. | A | B | C | ▲ | E | 18. | ▲ | B | C | D | E |
| 4. | ▲ | ▲ | C | D | E | 19. | ▲ | F | | | |
| 5. | A | B | C | ▲ | E | 20. | A | ▲ | C | D | ▲ |
| 6. | A | B | ▲ | D | E | 21. | ▲ | ▲ | C | ▲ | E |
| 7. | ▲ | B | ▲ | D | E | | | | | | |
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| 12. | ▲ | F | | | | | | | | | |
| 13. | ▲ | B | C | D | E | | | | | | |
| 14. | A | ▲ | C | D | E | | | | | | |
| 15. | A | ▲ | ▲ | D | E | | | | | | |

TEST KEY

FORM B

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| 2. | A | B | C | D | ▲ | 17. | A | B | C | D | ▲ |
| 3. | A | B | C | ▲ | E | 18. | A | B | ▲ | D | E |
| 4. | A | B | ▲ | D | E | 19. | A | B | ▲ | D | E |
| 5. | ▲ | B | C | D | E | 20. | A | ▲ | C | D | E |
| 6. | A | B | C | D | ▲ | 21. | ▲ | F | | | |
| 7. | ▲ | F | | | | | | | | | |
| 8. | A | B | C | D | ▲ | | | | | | |
| 9. | A | B | C | D | ▲ | | | | | | |
| 10. | ▲ | B | C | D | E | | | | | | |
| 11. | A | B | C | D | ▲ | | | | | | |
| 12. | A | ▲ | C | D | E | | | | | | |
| 13. | A | B | C | ▲ | E | | | | | | |
| 14. | A | B | ▲ | D | E | | | | | | |
| 15. | A | ▲ | C | D | ▲ | | | | | | |

PARTICIPANT EVALUATIONS

The sample *Participant Opinionnaires* that follow may be adapted for use at the end of each session, or modified as a feedback form for the entire course. The sample provided can be used for a unit, or a module, or the entire course.

These instruments may be used in addition to the pre- and post-tests, but will not substitute for the tests. That is, subjective assessments by trainees will not replace objective tests as an evaluative measure of trainee performance. The instruments, however, do provide at least two additional types of information: (1) The Likert-type scale (1 through 5) provides a quantitative measure of trainee reactions to various aspects of the course; and (2) the comments section provides the trainer with feedback with which he may want to make mid-course adjustments. In addition, it provides the trainee with an opportunity to express his feelings about the impact of training on him.

Be sure you have enough copies of *Forms A and B*, and *Participant Opinionnaires* as they are not included in the *Resource Manual*.

ADMINISTRATION

Either *Form A* or *Form B* may be used as the participants pre-test; the alternate form should be used as the post-test.

A scoring key is supplied. It should be hole-punched and then utilized to score answers.

Instructions should be verbalized as printed below. Inquiries regarding test item content should not be answered.

Time for test: 30-40 minutes. (However, allow all participants time to complete the test.)

INSTRUCTIONS

This test contains multiple-choice questions. On the answer sheet darken with a pen or pencil the letter that *best* answers the question.

DRUGS IN PERSPECTIVE (DIP)

PARTICIPANT EVALUATION

Instructions: Please circle a rating score for each item.
Do not check in between, above or below
rating scores. Feel free to write any addi-
tional comment on the back of rating sheets.

Course Title _____

Training Staff _____

Name _____

Role (check one) Participant _____ Staff _____

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Directions: Please rate the following areas using the scales below. Draw a circle around the rating score for each item.

Content

Rate the Lecture (presentation content).

(A) Utility	1 useless	2 marginal	3 useful	4 very useful	5 exceptionally useful
(B) Interest	1 dull	2 unstimulating	3 interesting	4 very interesting	5 exceptionally interesting
(C) Level	1 simple or too difficult	2 easy or difficult	3 average	4 balanced	5 balanced and challenging at times

Rate the Resource material (Resource Manual).

(A) Utility	1 useless	2 marginal	3 useful	4 very useful	5 exceptionally useful
(B) Interest	1 dull	2 unstimulating	3 interesting	4 very interesting	5 exceptionally interesting
(C) Level	1 simple or too difficult	2 easy or difficult	3 average	4 balanced	5 balanced and challenging at times

Rate the supplementary material (transparencies, films, charts, etc.).

(A) Utility	1 useless	2 marginal	3 useful	4 very useful	5 exceptionally useful
(B) Interest	1 dull	2 unstimulating	3 interesting	4 very interesting	5 exceptionally interesting
(C) Level	1 simple or too difficult	2 easy or difficult	3 average	4 balanced	5 balanced and challenging at times

Comments: What additional areas do you feel should have been explored? Any additional comments on material you like or disliked?

Rate the large group presentations.

Rate the small group processes.

Comments: What changes would have helped you/others learn better?

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.

DRUGS IN PERSPECTIVE

RESOURCE MANUAL

COURSE DEVELOPMENT TEAM

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PREFACE

One of the conceptual difficulties of health planners and people concerned with health policy has been the difficulty of defining "good health" in a way that provides a clear basis for social action. Some definitions emphasize the concept of "absence of disease." Other definitions are concerned with the positive promotion of quality of life; others combine both concepts. Yet there is no general agreement today on what constitutes "good health." This same dilemma carries over to the discussion of "drug abuse." Not only is there a question of what constitutes good treatment, but there has been an ambivalence as to the meaning of "drug abuse."

Historically, there have been a variety of definitions ascribed to the term "drug abuse." Some schools of thought use the classical public health approach; some use definitions that fit other social and behavioral models. Some people want to limit the discussion to the so-called "demand" activities—which center primarily on the development and delivery of health and social services. Still others want to include all activities designed to regulate the availability of drugs. While supply reduction efforts are an important aspect of an overall prevention strategy—and companion legal control approaches to tobacco and alcohol (such as taxes, ABC laws, minimum ages for legal drinking and smoking, controlled sales points, etc.) are essential for the more comprehensive discussion of drug abuse—this course will focus on those factors that attempt to influence behavior and attitude, and whose compelling force is not legal sanction. While definitions are important, we are less concerned with them than we are with the results of these efforts, which are to prevent, delay, and reduce the use and abuse of a variety of drugs.

We recognize that most people in the United States use or have used psychoactive substances. The latest national household survey on the use of psychoactive drugs (NIDA, 1976) notes that 50 percent of youths age 12-17 and 67 percent of all adults have smoked cigarettes; 55 percent of those youths and 82 percent of adults have used alcohol; 22 percent of the youths, and 21 percent of adults have used marihuana. These rates of use, especially with alcohol and tobacco, are associated with a high casualty rate to society—which we want to reduce. While the nonmedical use of psychotropic drugs (sedatives, tranquilizers, stimulants) is lower—11 percent of youths and 15 percent of adults—the consequences associated with such use are often costly to society, due to both drug overdose reactions, and a range of mishaps, work accidents, and deteriorated interpersonal relationships. Finally, while only one percent of the adults and one-half of one percent of the youths have used heroin, this use clearly is associated with high immediate social costs in terms of physical addiction, drug related crime, broken families, adverse health consequences, and even death.

There are a variety of strategies we can employ to reduce drug casualties. First, we want to reinforce the drug-free experience. Further, we are interested in limiting the variety of drugs used, since multiple drug use is often associated with chronic, intensive use of drugs. Finally, we are concerned about reducing the frequency of use because we believe there is a strong relationship between frequency and casualty. Consequently, our definition of drug abuse covers all of these areas.

COURSE OVERVIEW

PURPOSE

To identify the inaccurate images and unsound assumptions that hinder a clear understanding of the problem of substance abuse; to provide new ways of considering the phenomenon of substance use; to consider historical and social perceptions regarding substance use, patterns and trends of use, and societal and legal responses to illicit drugs; to provide an accurate description of psychoactive drugs in terms of effects and actions; to provide new ways of considering the etiology of substance abuse; to identify methods of substance abuse treatment; and to explore the goals, perspectives, and history of drug abuse prevention.

OBJECTIVES

Using the information presented in the Drugs in Perspective course, at the end of this course, and without the aid of notes, the participants will be able to:

- Identify two components of the spectrum of drug use.
- Identify four different perspectives for understanding drug use.
- Identify a definition for the word "drug."
- Identify at least two characteristics of physiological dependence.
- Identify at least two characteristics of psychological dependence.
- Identify at least three major events that led to the increasing use of substances during the 1960's.
- Identify one social and one legal response to substance abuse post Civil War.
- Identify one social and one legal response to the use of alcohol.
- Identify three changes that have occurred since 1965 in social and legal responses to substance abuse.
- Identify at least four perspectives, drawn from history, that represent consequences of the drug laws on certain groups.
- Identify one principle involved in the introduction of a new drug into a particular culture.
- Identify at least one new trend in substance use in the 1970's.
- Identify at least one result of chemical prohibitionist tactics.
- Identify various substances according to their classification as narcotic, analgesic, general depressant, stimulant, hallucinogen, or cannabis.
- Identify the term "tolerance."
- Identify at least one drug effect on human perception.
- Identify at least one drug effect on psychomotor functioning.
- Identify at least two variables which account for drug related risk.
- Identify at least one physiological effect of opioids.
- Identify at least one psychological effect of cannabis.
- Identify at least three reasons for using chemicals.
- Identify one way in which motives for use change as drug use patterns develop.

- Identify three factors which serve to maintain drug abuse patterns.
- Identify at least three specific consequences of continued substance abuse.
- Identify at least three commonalities of heroin and alcohol.
- Identify at least one criterion for labelling alcoholism a disease.
- Identify at least one rationale underlying methadone maintenance for treatment heroin dependence.
- Identify at least one principle of the Alcoholics Anonymous approach to alcoholism treatment.
- Identify at least one characteristic of one of the phases of an alcoholic's movement toward recovery.
- Identify at least three modalities applicable to the treatment of an opiate dependent person.
- Identify at least one advantage and one disadvantage of a therapeutic community in terms of treatment.
- Identify appropriate goals of prevention.
- Develop and list the four major perspectives of drug abuse, outlining each perspectives' goals, emphasis, and drawbacks for prevention.
- Classify and identify scare tactics, drug specific, nondrug specific, cognitive, and effective approaches to drug prevention.
- Identify at least five factors that should be considered for effective prevention education.
- Identify the role family, school, and community play in developing and incorporating the skills of valuing, decision making, communication, responsibility and success, in their respective systems.
- Define by listing, the assumptions and goals of alternative activities.
- Classify alternative activities and the skills, needs and aspirations that alternative activities might satisfy.

AUDIENCE

This course is designed to train drug abuse prevention and treatment workers (or their immediate supervisors), teachers, guidance counselors, drug educators, school psychologists, PTA/PTD members, recreation workers, youth workers, peer counselors, gang workers, youth employment counselors, parole and probation officers, outreach workers, hotline workers, people working with youth overseas, military personnel, and community service organizations.

CONTENT

Module I: Introduction and Orientation

Module II: Perspectives on Substance Use and Abuse

Module III: A Social and Historical Context for Understanding Substance Abuse in the United States

Module IV: Substance Actions

Module V: Understanding the Phenomenon of Substance Abuse

Module VI: Approaches to the Treatment of Substance Abuse

Module VII: Prevention Approaches and Strategies

Module VIII: Closure and Evaluation

METHODOLOGY

Lectures, mediated demonstrations, guided group discussions, task group exercises, and optional reading assignments.

TIME REQUIREMENTS

Total training time is 26 hours and 30 minutes.

STAFF REQUIREMENTS

Three trainers are needed to conduct this course. There should be a trainer/trainee ratio of approximately one trainer for each ten participants. Optimum training group size is 30 participants. It is recommended that a trained and knowledgeable psychopharmacologist conduct Module IV, Substance Actions.

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INTRODUCTION

This course is a thorough revision of the courses *Drug Abuse: Fundamental Facts and Insights* and *Facts About Drug Abuse* which were produced by the National Drug Abuse Center.

On March 22, 1973, the National Commission on Marihuana and Drug Abuse stated:

The term (drug abuse) has no functional utility and has become no more than an arbitrary codeword for that drug use which is presently considered wrong. Continued use of this term, with its emotional overtones, will serve only to perpetuate confused public attitudes about drug using behavior. The Commission urges that the public and its policy makers avoid such labels and focus instead on the relative risks and social consequences of various patterns of drug taking behavior.

The present training course, in an attempt to deal with both the confusion and emotional overtones of the term "drug abuse,"¹ is titled *Drugs in Perspective*.

The National Drug Abuse Center realizes that the word "abuse" also elicits emotional overtones and subjective interpretations; however, it is most descriptive of the course content.

No single training course can provide all the known information about drugs or substances and the abuse of either. This *Drugs in Perspective* course is a basic course, designed for those who lack knowledge of the areas listed below. They are essential areas that need to be understood if one chooses to engage in drug abuse prevention, treatment, rehabilitation, drug education efforts, or simply wishes to increase knowledge of drug abuse in order to sharpen his/her perspective about the current drug abuse problem in this country. The topic areas that are covered in this course are:

- Theoretical models of viewing substance use and abuse
- Spectrum of substance abuse
- Historical and social evolution of substance use
- Principles of psychopharmacology
- Substance actions, effects: hazards and benefits
- Patterns of drug use and abuse
- Approaches to the treatment of substance abuse
- Roles of families, schools, communities, and peer groups related to drug abuse prevention

TRAINING GOAL

One of the goals of this course is to assist participants in understanding the phenomenon of substance use and abuse by providing them with a conceptual framework which acknowledges several differing perspectives.

The secondary goal of this course is to build a base of knowledge and experience that will clarify and present general information related to drugs and abuse. It is our hope that participants will be stimulated to such further knowledge from other training and education opportunities related to drug abuse.

TRAINING METHODOLOGY

The training strategy combines didactic instruction and experiential learning. Various training methods are used to make the learning process more effective: lectures, demonstrations, task group exercises, guided group discussions, and individual reading assignments. Learning activities are designed to facilitate large group and small group interactions and to provide participants with an opportunity to gain knowledge and skills they can use on the job. Each module provides adequate time for new information to be presented, analyzed and applied.

The evaluation methodology incorporates written objective tests, simulations, trainer self evaluations, and participation feedback.

COURSE MATERIALS

Training materials consist of a *Trainer's Manual* and a *Resource Manual*.

The *Trainer's Manual* contains all of the course specified information the trainer will need:

- Goals and objectives of the course
- Time/Activity sheets that contain:
 - Training schedule with time allocations
 - Training tasks and the materials and equipment needed for each task
 - Training activities that specify expected trainer and trainee behaviors
 - Logistical details
- Trainer guidelines, process notes, and instructions for each exercise
- Detailed lectures and supplementary information

The *Resource Manual* contains the basic information that the trainer and participant should master. It includes:

- Course content
- Charts and forms used in each module
- Guidelines for task performance
- Papers, articles, and handouts related to lectures
- Bibliography and glossary

TIME REQUIRED FOR COURSE DELIVERY

The *Drugs in Perspective* course is composed of eight modules. The total training time is 26 hours and 30 minutes.

The modular organization of the course lends itself to a variety of delivery approaches. The course should be delivered in one or two module segments over an extended period of time, and it could be incorporated as part of a credentialing program for drug abuse program staff. For a delivery, the course schedule would be as follows:

COURSE SCHEDULE

Day One

- Module I: Introduction and Orientation (2 hours 10 minutes)
- Module II: Perspective on Substance Use and Abuse (3 hours 10 minutes)

Day Two

- Module III: A Social and Historical Context for Understanding Substance Abuse in the United States (4 hours 10 minutes)
- Module IV: Substance Actions (4 hours 50 minutes)

Day Three

Module V: Understanding the Phenomenon of Substance Abuse (4 hours 30 minutes)

Module VI: Approaches to the Treatment of Substance Abuse (3 hours 10 minutes)

Day Four

Module VII: Prevention Approaches and Strategies (3 hours 30 minutes)

Module VIII: Closure and Evaluation (1 hour)

STAFF REQUIREMENTS

Three trainers are needed to conduct this course. There should be a trainer/trainee ratio of approximately one trainer for each ten participants. Optimum training group size is 30 participants. It is recommended that a trained and knowledgeable psychopharmacologist conduct Module IV, Substance Actions.

FEEDBACK: THE ART OF GIVING AND RECEIVING HELP¹

Feedback is a way of helping another person to consider changing his behavior. It is communication to a person that gives him information about his or her behavior and its effect. As in a guided missile system, feedback helps an individual know whether his/her behavior is having the effect that s/he wants; it tells him/her whether s/he is "on target", as s/he strives to achieve his/her goals.

CRITERIA FOR USEFUL FEEDBACK

The giving and receiving of feedback is a skill that can be acquired. When feedback is attempted at the wrong time or given in the wrong way, the results will be useless at best and may even be disastrous. Therefore, developing feedback skills is important. Here are some criteria for useful feedback.

- It is descriptive rather than evaluative. Good feedback focuses on what the individual did; it does not translate his behavior into a statement about what he is. "You have interrupted three people in the last half hour" is probably not something that a person really wants to hear, but is likely to be more helpful than, "You are an ill-mannered oaf."
- It focuses on the feelings generated in the person who has experienced the behavior and who is offering the feedback. "When you interrupt me I feel frustrated," gives the individual clear information about the effect of his behavior, while at the same time leaving him free to decide what he wants to do about that effect.
- It is specific rather than general. For example, it is probably more useful to learn that you "talk too much" than to have someone describe you as "dominating."
- It is directed toward behavior that the receiver can do something about. Frustration is increased when a person is reminded of some shortcoming over which he has no control.
- It is solicited rather than imposed. Feedback is most useful when the receiver feels that he needs and wants it, when he himself asks a question that those observing him can answer.
- It is well timed. In general, feedback is most useful when given as soon as possible after the questioned behavior. Timing depends on the receiver's readiness to hear the feedback, the support available from others, and so on.
- It is checked to ensure clear communication. One way of doing this is to have the receiver try to rephrase the feedback in question to see whether the receiver's version corresponds to what the sender meant.
- Both giver and receiver have an opportunity to check its accuracy with others in the group. Thus, the receiver will know whether this is one person's impression or an impression shared by others.
- It should not be given primarily to "dump" or "unload" on another. If you feel you have to say this to the other person, ask yourself who it is you are trying to "help."
- Feedback does not ask "Why?" It focuses on one's behavior and the reactions to that behavior. To theorize about or ask why a person does a certain thing is to plumb the depths of motivation and, perhaps, of the unconscious. Avoiding the "whys" will help one to avoid the possible damage that can result from playing amateur psychologist.

Given the premise that properly given feedback can be a fine way to learn about oneself, what are the reasons that we resist it? For one thing, it is hard to admit our faults to ourselves. It is even harder to admit them to someone else. We are not sure that the other person can be trusted or that his observations are valid. We may be afraid of learning what others think of us; we often expect to hear only negative opinions about ourselves, tending to overlook our positive qualities.

There's a second side to this exchange: it is not always easy to give feedback to others. Most of us like to give advice. Doing so suggests that we are competent and important. We get caught up in a "telling" role easily enough without testing whether our advice is appropriate to the issue or to the abilities, the fears, or the powers of the person we are trying to help.

If a person whom we are trying to help becomes defensive, we may try to argue or pressure him. Defensiveness or denial on the part of the receiver is a clear indication that we are going about trying to be helpful in the wrong way; our timing may be off or we may be simply mistaken about his behavior; but, in any case, it is best to desist until we can reevaluate the situation. If we respond to the receiver's resistance with more pressure, resistance will only increase.

Feedback takes into account the needs of both the receiver and the giver. Positive feedback is welcomed by the receiver when it is genuine. If feedback is given in a training setting, under the conditions described here, it can become one of the primary means of learning about the self.

¹Cyril R. Mill. This material is taken from the *Reading Book*, 1972 Edition, of the NTL Institute for Applied Behavioral Science, associated with the National Education Association.

MODULE I: INTRODUCTION AND ORIENTATION

PERSPECTIVE

The purpose of this module is to orient participants to the course, Drugs in Perspective (DIP), establish a climate conducive to learning, describe the training process, provide a vehicle for future exchange of knowledge and opinions, and provide a forum for identification of participants' needs, questions, expectations, and learning goals.

CONTENTS

- Registration (30 minutes)
- Administering the Pretest (30 minutes)
- Formal Introduction (10 minutes)
- Optional Structured Experience: Getting Acquainted Triads (15 minutes)
- Overview: Goals and Objectives (15 minutes)
- Individual Exercise: Goal Setting (30 minutes)

Total Time: 2 hours 10 minutes

OBJECTIVES

Using the information presented in Module I as criteria, at the end of this module, and without the aid of notes, participants will be able to:

1. Identify the purpose of the DIP course .
2. Identify at least two goals of the DIP course .
3. Identify at least three content areas in the DIP course .
4. Identify at least one personal goal in attending the training .

"KEEP YOUR GOAL IN MIND"

Personal Goal Setting Guide

1. Stimulus. What are you aware of that stimulates you to think about change?
2. Visualization. Fantasize that you have made the changes you want to make. Experience being there.
3. Deterrents. Note any obstacles appearing in the fantasy, or discouraging thoughts or feelings.
4. Options. Identify alternatives (5 is a good number) for each obstacle or negative thought, while keeping your goal in mind.
5. Resources. What do you need, including information, time, internal or external support, money, paperwork?
6. Priorities. What do you need to do first? Then what? List all steps to reach the goal.
7. Checkpoints. Set a timetable and complete this statement: "I'll know that I have reached my goal when. . ."
8. Completion. Return to Stimulus (1). Do you experience a sense of satisfaction with your planning? If not, repeat 3 through 7. If so, you are well on your way. Keep your goal in mind!

MODULE II

PERSPECTIVES ON SUBSTANCE USE AND ABUSE

PERSPECTIVE

The purpose of this module is to provide information on and give participants new ways to consider the phenomenon of substance use.

CONTENT

- Overview of Module II (10 minutes)
- Lecture/Discussion: The "Problem" with Definitions and Perceptions (25 minutes)
- Lecture/Discussion: Perspectives (20 minutes)
- Individual Exercise: The Fifth Perspective (45 minutes)
- Large Group Discussion: Reporting Out (10 minutes)
- Lecture/Discussion: Spectrum of Use (20 minutes)
- Structured Experience: The Dependency Checklist (25 minutes)
- Lecture/Discussion: Physiological and Psychological Dependence (30 minutes)
- Summary of Module II (5 minutes)

TOTAL TIME: 3 hours 10 minutes

OBJECTIVES

Using the information presented in Module II as criteria, at the end of this module, and without the aid of notes, participants will be able to:

1. Identify two components of the spectrum of drug use.
2. Identify four different perspectives for understanding drug use.
3. Identify a definition for the word "drug."
4. Identify at least two characteristics of physiological dependence.
5. Identify at least two characteristics of psychological dependence.

*Drugs Demystified**

Chapter 1

by

Helen Nowlis

*Paris: The Unesco Press, 1975.

Chapter 1

The very fact that this publication should have been produced under the auspices of an international organization suggests that drug use by young people is recognized as a problem by a number of nations. The fact that it is addressed to parents and teachers suggests that families and schools as institutions, or parents and teachers as individuals, may be part of the solution—or perhaps even part of the problem. That it is addressed to an international audience reflects a hope and a belief that it is possible to discuss drugs and drug use, young people and adults and the ways in which they interact, and the complex and variable social and cultural contexts in which drug use occurs and is responded to. Moreover, it is hoped that this can be done through words and concepts that communicate to all, posing issues in such a way that they will be meaningful to all and advancing responses which may or may not be applicable in any given social and cultural context, but which may suggest responses that are applicable.

Societies and nations around the world have defined the use of certain substances by certain people for certain reasons as a problem. The substances, the people, the circumstances vary from place to place, from culture to culture. In many instances, the perceived characteristics of particular groups of people using drugs and their supposed reasons for using them determine the nature and extent of the response to use rather more than the particular substance used. In some instances, the emergence of the problem represents a new view of a familiar practice, such as use of marijuana by Jamaican farm labourers as part of their working day or the long-standing occasional use of amphetamines by students in order to stay awake to study for an examination or to finish a term paper. In other cases, the problem status of a particular kind of drug use is a function of the emergence of use in new segments of the population, notably among youth in contrast to adults and in groups other than lower class and minority groups. In still other cases, as a result of instant communications among the nations of the world, the problem is merely the fear that use of certain substances by certain groups will occur at home as it has elsewhere. Whatever the case, a problem is perceived and a solution is sought. Many initial responses are hasty, often emotional or irrational, and seldom either wise or discriminative.

Effective problem solving requires careful definition of the problem in descriptive rather than emotional terms, evaluation and selection of methods, tools and strategies relevant to the problem as stated, and constant evaluation of progress, identification of errors and willingness to try new approaches when old ones fail. Drug problems have been so ill-defined in such global and value-laden terms that it is little wonder that disagreement and controversy prevail. The problem must be defined in objective, descriptive terms—who is using what substance with what frequency for what reasons.

There are three basic elements in the use of any drug, legal or illegal, medical or non-medical: (a) the substance; (b) the individual who uses it; and (c) the social and cultural context in which drug use occurs. Any approach must take account of all three factors. Action based exclusively on any one is doomed to failure. Each element is complex; the

relative degree of complexity with which each is perceived usually depends on the experience, background, training and personal or professional investment of the viewer.

To the pharmacologist, each drug—its mode of action, and its effects—is complex. Complexities regarding the individual or the context, if recognized, are factors to be controlled rather than emphasized to explain variations. On the other hand, most of the general public, including those who make judgements, legislative or otherwise, about drugs, drug effects and those who use drugs, tend to have a simplistic view of drugs. The majority believes that all drugs can be divided into two mutually exclusive categories, good and safe or bad and dangerous. There is a tendency to consider drugs so categorized as similar if not equivalent, and users of such drugs as all alike. Drugs labelled as dangerous and whose use has been declared illegal are grouped together under a label such as 'narcotic', and distinctions among them tend to be minimized, despite the fact that they almost always include substances that are diametrically opposite in their action.

To the psychologist or behavioural scientist, the individual is extremely complex and variable. No explanation or action can hope to be effective unless such complexity and variability are recognized. Drug use is viewed as simply one instance of human behaviour and as sharing the characteristics of all human behaviour. The complexities of drugs are but one term in the human equation.

To the social scientist, variations in the social and cultural context of drug use are the complex factor. Cultures and subcultures define and respond to drug use in different ways. They approve or disapprove the use of certain substances. They state who may or may not use a given substance and under what conditions. Reasons for drug use are sought in such factors as institutional failure, social and economic conditions and societal responses to problems associated with drug use.

To the extent that the complexities of any one of the three elements are ignored or oversimplified, measures designed to modify drug-using behaviour will be less than effective. There is a greater degree of complexity than most humans will tolerate by preference. The human tendency is always to define a problem in such a way that it is amenable to a simple solution, especially one that a given group is prepared to provide. Mencken has been reported as observing that 'There is a solution to every problem, quick, simple and wrong.' The search often seems to be for measurable miracles.

There are four major points of view with regard to drug use and its three interacting components (substance, user, context): the traditional moral-legal, the medical or public health, the psycho-social and the sociocultural. Each varies in its assumptions about drugs, about people, about social and cultural context, in terms of the nature and relative importance of each. At the risk of gross oversimplification, and recognizing that there are many variations in each, these views can be described as examples of the diversity of assumptions made about drugs, about people and about societies. Each of these assumptions has implications for social action, education, prevention, treatment, and legislation and policy formulation.

The moral-legal model

The traditional moral-legal approach has placed major importance on the drug. Drugs are classified as safe or dangerous, where safe means not designated as dangerous or not socially or legally proscribed. The primary goal comes to consist of keeping specific drugs away from people. Drugs are assumed to be the active agent, people to be the uninformed, unwilling or deviant victims who must be protected via legal controls on cultivation, processing, manufacture, distribution, sale, sharing or possession of the substance, even in some instances, on possession of the paraphernalia or instruments for using. The principal deterrents are considered to be control of availability of drugs, increase in cost of drugs, punishment or threat of punishment, and warnings of great physical, psychological and social harm. Great emphasis is placed on the dangerous effects of drugs in an effort to deter use, and educational programmes based on these assumptions often consist primarily of dissemination of information about the dangers of specific drugs causing concern and about their legal status and the penalties attached to sale, use and possession. Just as drugs are dichotomized as legal or illegal, individuals tend to be dichotomized as users and non-users without regard to the kind of drug used or pattern of use. Although distinctions are sometimes made between 'soft' drugs and 'hard' drugs, both drugs and individuals tend to be dichotomized on the basis of legal or illegal, medical or non-medical.

The disease or public-health model

In the public-health model or approach, which has been increasingly considered as an alternative to the moral-legal model, drug, individual and context are translated into agent, host and context following the infectious disease model. Although differences between these two models may seem subtle, they have an important influence on the nature of recommended action. An agent is by definition, active, and in this model the drug as agent assumes, as in the previous model, the major role in the triad.

The drugs causing concern are defined as dependence-producing rather than simply dangerous as in the moral-legal model, but the two models share a major emphasis on drug or substance as the active agent. A major difference between the two approaches is that the public health view does not distinguish between legal and illegal and, therefore, often includes alcohol, nicotine, and caffeine as dependence-producing, but distinguishes them from other dependence-producing drugs on the basis of the contextual (social) variables of social acceptability and widespread availability and use. Decrease in social acceptability and increase in cost of dependence-producing substances thus become a means for possible reduction in use as well as control of availability.

The individual or host is viewed as vulnerable or not vulnerable, as infected and infectious. Since the identification of vulnerable individuals is far from perfect, there are various attempts to 'vaccinate' by measures including prevention-oriented educational programmes that tend to rely on information about the risks involved in initiating use of

designated substances and the personal and social harm caused by becoming dependent on these substances.

Although those adherents to the public-health model who are most experienced in dealing with drug use and drug users recognize inadequacies and seem to be moving in the direction of a psycho-social model, this model still represents their basic concept of the nature and relative importance of drug, of individual, and of context, and it determines to a major extent the manner in which they respond to problems associated with drug use. Drug users are to be treated and cured as a medical problem. Drug use is to be prevented as a public-health problem just as any infectious disease.

The psycho-social model

The psycho-social model tends to put major emphasis on the individual as the active agent in the drug-individual-context formulation. Drug use and drug user rather than pharmacological substances are the complex, dynamic factor and the major point for intervention. This model tends to be concerned with the meaning and function of drug use to the individual, with drug use as behaviour that, like other behaviour, would not persist unless it served some function for the individual. It tends to make distinctions among different amounts, frequencies, and patterns of drug use, the different functions that drug use may serve, the differential effects of different patterns of drug use in different individuals. It is concerned with context in terms of the influence of the perceived attitudes and behaviour of other persons individually or in social groups such as families, peer groups and communities. Context is seen as a contributor to both use and the problems associated with use via interpersonal definition of, and response to, drug use and drug users. Because of its emphasis on individuals and their behaviour, and on the role of social factors, this model often recommends non-drug-specific responses to drug use which turn out to be equally applicable to other destructive or deviant behaviours.

The sociocultural model

Those who view drug use and the problems associated with drug use from the sociocultural point of view tend to emphasize and recognize complexity and variation in the context factor of drug-individual context. Specific drugs gain their meaning and significance, not so much from their pharmacological properties, but from the way in which a given society defines and responds to their use and their users. Socially proscribed drug use is seen primarily as deviant behaviour to be viewed and treated along with other deviant or, if excessive, destructive behaviours. As in all deviant behaviours, harm may come to the individual either from the behaviour itself or from his society's response to that behaviour. This point of view recognizes that such behaviour will of necessity vary from culture to culture, from subculture to subculture. It goes behind the social and psychological factors emphasized in the psycho-social model to stress what is present in socio-economic and environmental conditions as the reasons for psycho-

logical stress and therefore, as the basic, if not essential, locus of intervention. Poverty, poor housing, discrimination, lack of opportunity, industrialization, urbanization are seen as the breeding ground of the more personal factors that the psycho-social model emphasizes—factors such as broken homes, lack of parental guidance, large, impersonal educational and work institutions and breakdown in social controls. This view also recognizes that, despite the tendency to see undesirable behaviour always as the result of undesirable aspects of the social system, much that is disapproved of is initially linked with things that are approved of and valued. Conformity, competition, achievement, productivity may be two-edged swords.

Each of these models represents a vantage point from which to view drug use and the phenomena associated with it and leads to different recommendations and actions designed to modify use. Each represents a lens through which to view drug, man, society and the interactions among them, the number and kinds of discriminations made within each factor, the nature of the response and the relative ability of various institutions and professions to intervene most effectively.

If the challenge is to keep drugs away from man, laws and law enforcement will be given a major role; if it is to keep man away from drugs, the responsibility will be that of those skilled in the behavioural sciences; if it is to create an environment in which the needs that drug use serves are better served by behaviour involving less risk, less potential for harm to the individual and the society, every institution and the individuals who have roles in each institution have a role to play.

Four important new trends are developing in the definition of, and response to, socially disapproved and destructive drug use. These have occurred primarily in those countries and parts of countries that have struggled longest and hardest to modify unacceptable drug use and only after other approaches have been tried. The first of these new trends is to define the problem in psycho-social terms rather than pharmacological, legal or medical terms, to place increasing emphasis on drug use as behaviour. The second is, often reluctantly, to adopt as a primary goal not the prevention of use but the reduction of the problems associated with destructive drug use. The third is an increasing though not dramatic willingness to put socially disapproved drug use by youth in the context of use of all drugs, legal and illegal, by persons of all ages. The fourth, closely associated with the third, is a willingness to include alcohol as a drug and to consider the implications of its use both by adults and by youth.

Indications of these trends are abundant in the conclusions and recommendations of a number of recent international meetings. That these meetings have included among their participants and as consultants an increasing number of social and behavioural scientists, of individuals working directly with young drug users and of youth themselves is perhaps both a recognition of these trends on the part of the conveners and the major factor influencing the recommendations that resulted. At the very least they

suggest a willingness to entertain the possibility that traditional responses by traditional institutions have been less than effective.

Each of these trends has important implications for both parents and teachers in their roles as educators, for both families and schools in their roles as the institutions traditionally charged with the socialization of the young. They define the goals of any attempt to influence drug use and, in turn, the choice of methods and strategies for reaching those goals.

It is proposed here, to examine in detail, the psycho-social model, its strengths and weaknesses, its implications for education and prevention, especially for parents and teachers, and its important ties with the sociocultural model. However, it will be necessary first to analyse drug-related problems in general, and to state them in the most objective possible terms. The first step in problem-solving is to analyse the problem in terms that will facilitate and not interfere with its solution. The second step is to select methods and strategies judged most likely to lead to a solution of the problem as stated. The third is to monitor on a regular basis the effectiveness of those methods and strategies in moving toward the goals specified. Perhaps most important, the fourth is a willingness to face the well-demonstrated fact that problem-solving is inevitably a trial-and-error process. Failure is only failure to recognize errors and to correct them, that is, to change. People and institutions do not change easily. Ways of stating problems and ways of responding to them tend, once accepted, to be pursued doggedly.

Chapter 2

Drug use

Drug use often appears to be a fairly simple phenomenon which can be defined in simple terms—either one uses or one does not use. Unfortunately, use is not simple but is nevertheless often described in simple terms. To categorize all people as users or non-users of certain substances for certain reasons may serve some purpose, but it is not at all useful in understanding drug use or as a basis for modifying drug use behaviour. A majority of people in many cultures do use one or more of a wide variety of psychoactive substances. Different people use different substances in different amounts for different reasons under different circumstances. The majority of people do not use substances proscribed by their culture or for reasons unacceptable in their culture. If the majority did, it is probable that the culture would be modified to include such use of such substances. Customs, mores, and laws in general represent consensus in a given culture. Both increasing use of a new drug and its users represent a threat to that consensus.

To put drug use in perspective it is necessary to make at least some gross distinctions. These are usually made on the basis of either type of substance used or of different levels of frequency of use. Such levels often include: (a) experimental use, often defined as one to three times; (b) casual or occasional use, which may be not more than once or twice a month; (c) regular use, which may be weekly or several times a week, depending on the particular substance used, and (d) heavy or compulsive use which usually implies daily use, although it may occur on a spree basis with extremely heavy use for several days on a periodic basis, as with the occasional or repeated alcoholic binge.

Experimental use

The initial decision to try a drug has less to do with the drug and its pharmacological properties than with the meaning and the value an individual places on both. Before he has ever experienced the effects of the drug, he knows it only by reputation and hearsay. Virtually all studies of the reasons for initial use agree that curiosity and peer pressure are major motivating factors. Availability of the drug, a setting for use that is perceived as relatively safe, and friends who use drugs are necessary, but not sufficient, factors for initial use. Virtually all studies agree that the majority of experimenters with illicit drugs do not become users. Curiosity is satisfied. Status with peers is gained. The effects are not valued, are not worth the risks involved. Other activities are more valued.

Casual or occasional use

The majority of experimenters do not continue to use and the majority of those who do continue do so on a casual or occasional basis. The drug is used only when readily available and only in a social context where it is being used. Use is usually spontaneous rather than planned. The major reasons for continued occasional use are primarily social, not too different from those for adults' casual use of alcohol. It facilitates social interaction; it feels good; it is fun. Most casual or occasional users do not become regular users. As an experience and an activity it is not very important when compared to other experiences and activities.

Regular use

What is defined as regular use rather than heavy use depends on a combination of such factors as the frequency of use, the particular drug used and the point of view of the observer or the judge. Regular use is distinguished from heavy or compulsive use both in terms of the reasons for use and the strength of the need to use. When use becomes either regular or heavy the concept of psychological dependence is invoked. Such dependence merely means that the individual is unhappy when the drug or the opportunity to use it is not available and will go out of his way to seek the drug and the opportunity to use it. The reasons for regular or heavy use are more diverse, more central to the personality of the user than in experimental or casual use and more related to the pharmacological action of a particular drug, whether it is a stimulant, a depressant, an analgesic, or a substance that changes perceptions of self and environment.

Heavy or compulsive use

Only a small minority of users become compulsive users just as only a small minority of users of alcohol become alcoholics. Although compulsive use usually implies extremely high frequency of use, it actually covers a range of frequencies. The central factor in compulsive use is the degree to which use dominates the life of the individual. When major time and thought and energy are devoted to getting the drug, taking the drug, discussing the effects of the drug, associating almost exclusively with others who use the drug, use is considered compulsive. The individual is considered psychologically dependent on the drug or, as is increasingly the case, on several drugs rather than a specific drug. Psychological dependence is currently considered more important than true physiological dependence as the critical factor in most compulsive drug use. Physiological dependence can be managed as it is regularly in the use of dependence-producing substances such as opiates for the relief of pain in medical practice. Psychological dependence is much more complex and highly individual.

Drug users

Whenever there is concern with deviant or destructive behaviour there is often an attempt to identify physical, psychological or social background factors characteristic of those who engage in these behaviours on the assumption that others who share the same characteristics and background are more likely to become involved in the same deviant or destructive behaviours. Efforts to prevent, intervene, or isolate may then be concentrated on those so identified.

No such factors have as yet been clearly identified as either necessary or sufficient to serve as a basis for reasonably accurate prediction. Availability of drugs, a situation in which drug use is perceived as safe and association with friends who use drugs seem to be the only factors that can be identified as necessary for drug use. None is a sufficient factor.

Biological and medical scientists have searched for physiological, genetic or biochemical factors; behavioural

scientists have searched for specific character disorders or psychopathology, for arrested stages of growth and development, for influences on development of such factors as broken homes, permissive or *laissez-faire* parents, patterns of child rearing, social, religious and political attitudes of parents; social scientists have sought explanations in terms of deprivation, poverty, poor housing, inadequate educational and occupational opportunities, prejudice and discrimination, as well as such factors as cultural pressures supporting drug use, advertising and content of mass media. What is found is often a function of what was sought.

On the whole, differences between users and non-users of this or that drug or of psychoactive drugs in general are small though in some cases statistically significant. They are often specific to the sample studied both in terms of socio-economic and cultural characteristics, type of drug used, and pattern of use.

Just as it was necessary to distinguish among types of drug use, it is even more necessary to distinguish among types of drug user and drug used. This adds another dimension of complexity to a picture that is already very complex. This complexity presents the greatest difficulties for those who insist on simple, universal answers. Acceptance of such complexity enables one to begin to define a particular problem in a particular community and to begin to solve it.

It is much easier to address the problems posed by a group of socially and economically privileged high-school students using marijuana occasionally because they are bored, are experimenting with independence and rebellion as well as drugs, than it is to solve 'the drug problem' at a national level. It is easier to address the problems created by economically, educationally and socially deprived 9-, 10- and 11-year-olds sniffing glue as perhaps the only momentary escape from an almost unbearable existence available to them than it is to develop nationally a social or educational policy that addresses the problems associated with non-medical drug use.

Drug users are experimenters or casual or occasional users or regular users, or they may be periodic or regular heavy users or compulsive users of an increasing array of substances.

Experimenters

To invoke factors other than social in distinguishing between experimenters and non-users is probably not justified and may even be non-productive. On most psychological and life-history variables, experimenters do not differ significantly from their abstinent counterparts. Some studies would suggest that in one nation, at this point in time, experimenters with cannabis or marijuana tend to be more intelligent, to come from a higher socio-economic background, to be more adventurous, creative and rebellious than non-users! This would not have been true in the same place ten years ago. Nor is it true, for example, for experimenters inhaling solvents.

Casual or occasional users

As is the case with experimenters, social and chance factors are still predominant with casual or occasional users.

Availability, a place perceived as relatively safe and friends who use or approve of use are key factors, as are the drugs used.

Regular users

The lines between occasional and social and between social and regular users are hard to draw with any degree of precision especially without reference to specific drugs. Moreover, there is a large group of social users who fluctuate between occasional and regular use. But at the stage of regular use differences begin to appear between users and non-users. They are still tenuous and still complex, still highly variable.

The results of one of the few studies that have followed a large, randomly selected national sample over a period of four to six years spanning grades X-XII (ages 13-17) and at least two years of post-high-school experience illustrate this complexity and this variability. In one sample, 2,200 boys in eighty-seven high schools in the United States were followed through their last two years in high-school and as young men through at least two years of post-high-school experience, whether in college, at work or in the military. Those from higher socio-economic levels used more marijuana and substances usually referred to as hallucinogens; the highest socio-economic group used the most barbiturates. They used less alcohol during high school but after high school their use of alcohol did not differ from that of those from lower socio-economic status. Those with the higher intelligence used more marijuana and fewer cigarettes. Use of marijuana and hallucinogens was greater for those with higher intelligence than with lower. The more intelligent were less likely to use alcohol in high school. They showed the lowest level of barbiturate and heroin use, and amphetamine use was greatest at both the highest and lowest levels of intelligence. At intermediate levels of intelligence there were no clear differences in amphetamine use.

Higher rates of use of most illegal drugs were found for those from broken homes, and of both legal and illegal drugs for those whose families had moved at least once during the high-school years. The more delinquent were substantially more likely to be users of both legal and illegal drugs, but users did not increase their level of delinquency from pre-drug-use levels. There was a strong relationship between use of marijuana, hallucinogens, and amphetamines and political dissent. Both college and non-college students who rated high on measures of dissent used more of these drugs. Involvement with illegal drugs did not have any significant association with level of delinquency or academic performance. Although users tended to have higher rates of delinquency and lower academic performance, these clearly predated drug use. One of the strongest relationships was that between drug use of all kinds and size of school: the larger the school, regardless of whether it was in a large city or not, the more drug use.

Attitudes toward drug use were basically conservative except in the case of marijuana where they were generally more liberal but tended to be polarized. Attitudes did not differ among the college, civilian employed or military segments of the population.

If this is confusing, it should be. Drug use is complex

and confusing. It is only when one pretends that it is not that one makes mistakes. One must consider who uses what drugs and when, if one wishes to help real individuals and not merely respond to an ill-defined problem.

Compulsive users

In characterizing heavy compulsive users it is not difficult to distinguish them from non-users but it is difficult to distinguish them from those who exhibit other forms of destructive behaviour. Many feel that the greatest mistake that can be made is to consider heavy, destructive drug use by young people as something uniquely different from such destructive behaviours as violence or from adolescent suicide, both of which they point out are increasing rapidly. Some would go so far as to suggest that preoccupation with drug use at all levels is primarily a mechanism to avoid facing basic social problems and that adolescent suicide and violence, like destructive drug use, are only manifestations of such basic problems.

Compulsive drug users are often described as immature, as suffering from various kinds and degrees of psychopathology, as unwilling to face and seek solutions to problems that other people solve, as alienated, as suffering from character disorders. They are people with problems that they seek to respond to through the use of drugs. It is tempting to see them as perverse; it is more constructive to see them as people with problems with which they cannot cope in socially acceptable ways.

Any of the factors that seem to be related to drug use or potential drug use are in all probability equally relevant to any of a number of different deviant or destructive behaviours. At the level of prevention of experimentation, if experimentation can be prevented, social and cultural factors are probably more relevant than any personal or psychodynamic characteristics. Informal social attitudes toward the use of any substance, the way in which a society or a group within a society defines the use of the drug as dangerous, daring, forbidden, deviant, destructive to self or society, will influence who uses what drug for what purpose. The sociological concept of 'dictated deviance', that process by which a society or group defines a certain behaviour as a major form of deviance and in the process channels deviance and dissidence into that behaviour, should be seriously considered by those groups or societies in which non-medical or illegal use of specified substances is not yet widespread. To define drug use as a 'number one problem' may contribute to making it one.

CLARIFYING EXERCISE: THE FIFTH PERSPECTIVE

Instructions: Check your personal attitudes on the following issues:

	Agree	Ambivalent	Disagree
1. <u>Moral Legal Perspectives</u>			
a. Appropriate use of any substance is defined by the letter of the law	—	—	—
b. Punishment or threat of punishment is the best deterrent to drug use	—	—	—
c. Illicit drug users are uninformed, unwilling, or deviant and must be protected via legal control	—	—	—
2. <u>Disease or Public Health Perspective</u>			
a. Dangerous substances include caffeine, nicotine, alcohol as well as heroin, barbiturates, and other dependence producing or physically harmful drugs	—	—	—
b. Pharmacologic factors are of far greater concern than whether or not a substance is licit or illicit	—	—	—
c. Substance abusers should be treated as a medical problem	—	—	—
3. <u>Psychosocial Perspective</u>			
a. Drug use serves some functional purpose for some individuals	—	—	—
b. Motives for use of any substance vary from individual to individual	—	—	—
c. Appropriate use of any substance depends solely on the personal consequences to a given individual	—	—	—
4. <u>Sociocultural Perspective</u>			
a. Appropriate use of any substance is defined by the society in which it occurs	—	—	—
b. Sociocultural, economic, and political changes are the only viable way to minimize drug abuse.	—	—	—
c. Consequences of drug use are determined largely by whether or not that drug taking behavior is acceptable to a particular culture or society	—	—	—
5. The perspective I tend to operate from personally is:			

6. The perspective my working environment tends to operate from is:

7. Define:

Drug/Substance _____

Drug/Substance Use _____

Drug/Substance Abuse _____

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THE "DEPENDENCY" CHECKLIST

INSTRUCTIONS

For each act on the following list that applies to you, put the number of as many reasons as seem appropriate next to the act. Try to remember your initial reasons (and include these) for doing the act, as well as your current reason(s). Even if some acts do not apply you may fill in reasons if you can imagine yourself doing the act.

Feel free to add items to either side of the list.

When you have completed checklist, circle three or four items that have at least six reasons assigned to them. These acts will be the ones you will use for examining their historical development in your life.

<u>Acts</u>	<u>Reason</u>
Smoking	1. Makes me feel good.
Drinking coffee/tea	2. Reduces tension.
Having a drink	3. Puts order in my life.
Watching a particular TV show	4. Gives me something that is uniquely mine.
Playing a musical instrument	5. Perks me up.
Making love	6. Calms me down.
Eating pastry on Sunday morning	7. Provides a change of pace.
Walking the dog	8. Gives me social acceptance.
Going to religious services	9. Gives me a sense of well being.
Playing a sport	10. Makes me anxious if I don't do it.
Sunbathing	11. Makes me feel guilty if I don't do it.
Cooking dinner	12. Makes me feel "square" if I don't do it.
Being a parent	13. Makes me feel in control of my life.
Not being a parent	14. Usually I just have to do it—it is one of life's givens.
Having an after-dinner liqueur	15. My parents did it.
Taking a tranquilizer	16. My friends approve of it.
Taking vitamins	
Buying a house	
Having a savings account	
Paying each bill the day it comes in	
Not being late	
Buying clothes	
Grocery shopping	
Reading a book	
Having a routine	

Acts

Reasons

Having a place for everything

Sleeping

Doing nothing

Putting things off

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NATURE OF DRUG DEPENDENCY

The Term "Drug Dependence"

Much thought and discussion have been devoted to finding a term that will cover all kinds of drug abuse. The component in common appears to be dependence, whether psychic or physical or both. Hence, use of the term "drug dependence" with a modifying phrase linking it to a particular type of drug in order to differentiate the characteristics associated with one class of drugs or another has been given most careful consideration. In its thirteenth report, the WHO Expert Committee on Addiction-Producing Drugs (1964) recommended substitution of the term "drug dependence" for both of the terms drug addiction and drug habituation.

Drug dependence is a state of psychic or physical dependence, or both, on a drug, arising in a person following administration of that drug on a periodic or continuous basis. The characteristics of such a state will vary with the agent involved and these characteristics must always be made clear by designating the particular type of drug dependence in each specific case; for example, drug dependence of morphine type, of barbiturate type, of amphetamine type, etc.

The specification of the type of dependence is essential and should form an integral part of the new terminology, since it is neither possible nor even desirable to delineate or define the term drug dependence independently of the agent involved. It should also be remembered that it was the desire to achieve the impossible and define a complex situation by a single term ("addiction" or "habituation", respectively) which has given rise to confusion in many cases. Therefore, the description of drug dependence as a state is a concept for clarification and not, in any sense, a specific definition.

It must be emphasized that drug dependence is a general term that has been selected for its applicability to all types of drug abuse and thus carries no connotation of the degree of risk to public health or need for any or a particular type of drug control. The agents controlled by international treaties and by national narcotics laws continue to be those that are morphine-like, cocaine-like or cannabis-like, the use of which may result, respectively, in drug dependence of morphine type, of cocaine type, or of cannabis type. Other types of drug dependence, such as those of the barbiturate and amphetamine and alcohol types, continue to present problems, and their description under the general term of drug dependence, while it may help to delineate those problems, in no way suggests or affects the measures

to be taken to solve them. Use of the general term will help to indicate a relationship by drawing attention to a common feature associated with drug abuse, but at the same time will differentiate, by more exact description, specific characteristics according to the nature of the agent involved.

Further to clarify our meaning, the nature and significance of drug abuse may be considered from two points of view: one relates to the interaction between the drug and the individual, the other to the interaction between drug abuse and society. The first viewpoint is concerned with drug dependence and the interplay between the pharmacodynamic actions of the drug and the psychological status of the individual. The second - the interaction between drug abuse and society - is concerned with the interplay of a wide range of conditions, environmental, sociological and economic. The Committee tried to encompass both points of view when, in its definition of addiction, it listed characteristics of which some were pharmacodynamic and others psychological and socio-economic, perhaps thereby compounding some of the existing confusion.

As already noted, individuals may become dependent upon a wide variety of chemical substances that produce central nervous system effects ranging from stimulation to depression. All of these drugs have one effect in common: they are capable of creating, in certain individuals, a particular state of mind that is termed "psychic dependence." In this situation, there is a feeling of satisfaction and a psychic drive that require periodic or continuous administration of the drug to produce pleasure or to avoid discomfort. Indeed, this mental state is the most powerful of all of the factors involved in chronic intoxication with psychotropic drugs, and with certain types of drugs it may be the only factor involved, even in the case of most intense craving and perpetuation of compulsive abuse.

Some drugs also induce physical dependence, which is an adaptive state that manifests itself by intense physical disturbances when the administration of the drug is suspended or when its action is affected by the administration of a specific antagonist. These disturbances, i.e., the withdrawal or abstinence syndromes, are made up of specific arrays of symptoms and signs of psychic and physical nature that are characteristic for each drug type. These conditions are relieved by re-administration of the same drug or of another drug of similar pharmacological action within the

same generic type. No overt manifestation of physical dependence is evident if an adequate dosage is maintained. Physical dependence is a powerful factor in reinforcing the influence of psychic dependence upon continuing drug use or relapse to drug use after attempted withdrawal.

To reiterate, psychic dependence can and does develop, especially with stimulant-type drugs, without any evidence of psychical dependence and, therefore, without an abstinence syndrome developing after drug withdrawal. Physical dependence, too, can be induced without notable psychic dependence; indeed, physical dependence is an inevitable result of the pharmacological action of some drugs with sufficient amount and time of administration. Psychic dependence, while also related to pharmacological action, is more particularly a manifestation of the individual's reaction to the effects of a specific drug and varies with the individual as well as with the drug.

MODULE III: A SOCIAL AND HISTORICAL CONTEXT
FOR UNDERSTANDING SUBSTANCE ABUSE IN THE UNITED STATES

PERSPECTIVE

The purpose of this module is to provide information on and give participants new ways to consider the social and historical development of substance use in this country. This module focuses on historical and social perceptions, misconceptions, substance use patterns and trends, and the societal and legal response to use of illicit drugs.

CONTENT

Overview of module III	(5 Minutes)
Total Group Discussion: Stereotypes, Perceptions and laws	(15 Minutes)
Lecture: Early American Drug Use	(30 Minutes)
Lecture: Marihuana Use	(20 Minutes)
Lecture: Alcohol Use	(15 Minutes)
Lecture: Barbituate and Tranquilizer Use	(5 Minutes)
Lecture: LSD-25	(15 Minutes)
Lecture: Heroin Use	(15 Minutes)
Lecture: Substance Abuse Laws	(20 Minutes)
Lecture: Transitions: A Drug Sociology of the 1970's	(15 Minutes)
Lecture/Discussion: Themes in Chemical use and Prohibition	(30 Minutes)
Small Group Activity: Historical Script	(60 Minutes)

TOTAL TIME: 4 hours 10 minutes

OBJECTIVES

Using the information presented in Module IV as criteria, at the end of this module, and without the aid of notes, participants will be able to:

1. Identify at least three major events that led to the increasing use of substances during the 1960's.
2. Identify one social and one legal response to substance abuse post Civil War.
3. Identify one social and one legal response to the use of alcohol.
4. Identify three trends that have occurred since 1965 in social and legal responses to substance abuse.
5. Identify at least four examples, drawn from history, that represent consequences of the drug laws on certain groups.
6. Identify one principle involved in the introduction of a new drug into a particular culture.
7. Identify at least one new trend in substance use in the 1970's.
8. Identify at least one result of chemical prohibitionist factors

AN ANNOTATED HISTORY OF THE USE, PROMOTION
AND PROHIBITION OF MOOD-ALTERING DRUGS

by

William Lee White

Human history is an unending process of stepping beyond the consciousness of everyday reality through the aid of drugs, drama, ideologies, religions, and rituals, each promising a transient and pleasurable vacation from the humdrum of one's existence or deliverance to the promised land. The following annotated record of human use of mood altering drugs and the efforts to promote and prohibit such use is a modest attempt to summarize one facet of this history. A synopsis of such an extensive history is unavoidably an interpretation. Implicit in the choice to include or exclude events is the author's view of which themes are crucial in understanding the evolution of our response to the use of intoxicating substances.

The historical account presented here depicts religious and moral definitions of good and evil substances and good and evil people. It is a social history depicting the manner in which "in-groups" and "out-groups" are determined through the definition of normalcy and deviance. It is a cultural history demonstrating the immense power of cultural mores and social policies to shape our experiences with chemicals both positively and negatively. It is an economic history portraying the power of vested interest groups, both licit and illicit, and their ability to influence national policies. It is a history of bureaucracies with their innate tendencies to justify their existence and expand the scope of their influence. One also finds a personal history in the lives of those men and women who, for whatever reasons, ingest substances that are not sanctioned by their culture.

This material is presented in the hope that it will be both informative and thought provoking. Extensive footnoting has been used for the benefit of those who may wish to explore it in greater depth.

- | | |
|---------------|---|
| 5000 B.C. | Earliest historical record of opium use is by Sumerians. ¹ |
| 3500 B.C. | Earliest recording of the production of an alcohol - a description of a brewery on an Egyptian papyrus. ² |
| 2737 B.C. | First reference to medical use of marihuana in a pharmacy book is written by Shen Nung, a Chinese emperor. He recommends it for female weakness, gout, rheumatism, ³ malaria, beriberi, constipation, and absent-mindedness. |
| 2400 B.C. | The King of Crete introduces the practice of taxing wine as an easy and lucrative source of government revenue. ⁴ |
| 2000 B.C. | Earliest prohibitionist teaching by an Egyptian Priest to his pupil: "I, thy superior, forbid thee to go to the taverns. Thou art degradable like the beast." ⁵ |
| 1134-256 B.C. | During the Chou Dynasty in China, laws against the production, sale and consumption of alcohol are passed and repealed forty-one times. ⁶ |

- 624-584 B.C. Cyaxares reclaims Persia from the Scythians by inviting them to feast, getting them drunk, and then slaughtering them - one of the first references to the use of alcohol as a weapon in war.
- 565-478 B.C. Buddha in his teaching stressed the importance of total abstinence from alcohol. A number of the Sutras make reference to its disadvantages and the evils befalling one who partakes of strong drink. Among those Buddhas listed were loss of reputation, disturbance of temper, and daily loss of wisdom.
- After Buddhism became the national religion of Japan, prohibition of alcohol is decreed by several emperors from A.D. 646 to 770.⁸
- 427-347 B.C. Plato recommends that wine be withheld from children under 18, slaves, magistrates, judges, and councilors while on duty. He also suggests that drinking parties be regulated by appointing a supervisor for each affair.⁹
- 350 B.C. Proverbs 31:6-7 "Give strong drink to him who is perishing, and wine to those in bitter distress; let them drink and forget their poverty and remember their misery no more."⁹
- 300 B.C. First extensive description of the pharmacology of opium appears in the writings of Theophrastus.¹⁰
- 300 B.C. The Greek Physician Erasistratus warns of the addicting properties of opium.¹¹
- A.D. 200 Earliest evidence of tobacco smoking among Arizona Indians.¹²
- 550-479 The teachings of Confucius encourages moderation in drinking but stops short of demanding abstinence.¹³
- 1000 Beginning of coca cultivation in Peru. It is used as a sacred emblem of strength, endurance, and fertility.¹⁴
- 1200 Opium is first introduced into China by Arab traders.¹⁵
- 1200-1553 Inca Empire: the coca plant is declared gift of the Sun God, and takes its place in the Inca culture as a divine plant.¹⁶
- 1235-1311 Arnold of Villanova publishes Treatise on Wine in which he recommends medicinal use of wine to kill worms in the intestines, states it is good for the spleen, stomach, and liver; cures pains and swelling; and advocates drinking wine to avoid nausea at sea.¹⁷
- 1300 Coffee is first placed under cultivation in Arabia and is initially used in religious ceremonies, a practice condemned by the conservative priesthood because they consider coffee intoxicating and thus forbidden in the Koran.¹⁸
- 1300 In China, decrees forbidding manufacture, sale, and use of wine include penalties of confiscation of property, slavery, and death.¹⁹

- 1327 First national legislation in England to control intemperance. It attempts to limit the number of places alcohol can be sold. It is rapidly repealed.²⁰
- 1493 Tobacco is introduced into Europe by Columbus and his crew after their return from America.²¹
- 1494 England enacts a law requiring establishments that sell alcohol to be licensed by a Justice of the Peace.²²
- 1500 Coffee is prohibited in Egypt; supplies of coffee are confiscated and burned.²³
- 1525 Paracelsus (1490-1541) introduces Laudanum, a combination of alcohol and opium that becomes one of the most common sedatives through the 19th century; it is also used to treat coughing and diarrhea.²⁴
- 1528 The first commercial tobacco plantation is begun on the island of Santo Domingo.²⁵
- 1553 After their conquest of Peru, the Spanish in Lima prohibit use of the coca plant as heathenish and sinful. They later change this position when it is discovered the natives cannot continue the heavy labor in the mines without use of the plant. A system is established whereby coca leaves are distributed three or four times a day to the workers.
- 1554 First coffee house in the world is opened in Constantinople.²⁷
- 1565 Dr. Nicholas Monrodes publishes first description of coca (cocaine) in Europe and in 1569 advocates and praises use of the plant in combatting hunger and fatigue.²⁸
- 1600 Drinking of coffee is forbidden in the Moslem Eastern Mediterranean Region. The penalty for owning or visiting a coffee house is death. (Behind this ruling was the fact that political malcontents had begun using the coffee houses as a meeting place.)²⁹
- 1600 Czar Michael Federovitch sets execution as the penalty for possession of tobacco in Russia. Later, Czar Alexei Miklailovitch rules that anyone caught with tobacco should be tortured until he reveals the name of the supplier.³⁰
- 1611 First American crop of Indian hemp (marihuana) is planted near Jamestown, Virginia.³¹
- 1612 First commercial tobacco plantation in North America is started in Jamestown, Virginia by John Rolfe. Within 25 years it becomes the primary export of the English Colonies.³²
- 1619 Twelve years after alcohol is brought to the Colony of Virginia a law is enacted against drunkenness with penalties as follows: first offenders to be rebuked in private by a minister; second offenders to be rebuked in public; third offenders to be sentenced to "lie in halter" for 12 hours and pay a fine. The same year Virginia

- passes laws encouraging the production of wine and distilled spirits.³³
- 1624 Joan Fran Rauch attacks chocolate as a "violent inflamer of the passions."³⁴
- 1630 Over half of American clothing is made from hemp fiber (marihuana).³⁵
- 1638 A Chinese decree threatens decapitation to anyone trafficking in tobacco.³⁶
- 1641 A decree of Tzar Michael of Russia includes exile as a possible penalty for sale or use of tobacco. Earlier punishments included slitting the noses of offenders.³⁷
- 1642 Urban VIII issues a papal bill condemning tobacco in all its forms.³⁸
- 1642 Maryland enacts law making drunkenness punishable by a fine of 100 pounds of tobacco.³⁹
- 1650 The prohibitions against tobacco in Bavaria, Saxony, and Zurich prove to be ineffective. Sultan Murad IV prescribes the death penalty for smoking tobacco.⁴⁰
- 1650 Connecticut enacts a law forbidding anyone to drink for more than one-half hour at a time.⁴¹
- 1659 Connecticut enacts a law that places a fine of \$5.00 for drunkenness in one's own home.⁴²
- 1664 Virginia passes a law forbidding ministers from drinking in excess.⁴³
- 1674 The Women's Petition Against Coffee reports among other things that the use of coffee diminishes sexual excitability and results in sterility.⁴⁴
- 1690 A law encouraging distillation of brandy and spirits from corn is enacted in England.⁴⁵
- 1691 The penalty for smoking tobacco in Luneberg, Germany is death.⁴⁶
- 1791 New Hampshire enacts an ordinance to publicly post the names of drunkards and forbids anyone to sell them liquor.⁴⁷
- 1729 Emperor Yung Cheng of China issues an imperial ban on opium and sets the punishment for keeping an opium shop at strangulation after brief imprisonment. China thus becomes the first country in the world to prohibit the sale and smoking of opium.⁴⁸
- 1753 The Indian hemp plant (marihuana) is named Cannabis Sativa by Linnaeus.⁴⁹
- 1760 Virginia passes a law prohibiting ministers from "Drinking to excess and inciting riot."⁵⁰
- 1762 "Dover's Powder" is introduced in England and becomes one of the most common opium preparations for the next

150 years.⁵¹

- 1762 Virginia imposes penalties upon farmers who do not produce hemp (marihuana).⁵²
- 1768 Captain James Cook in his voyages reports the use of Kava Kava in Polynesia. Kava Kava, a mild euphoriant, is used in the native religious rituals. Western missionaries attempt to stamp out the use of Kava Kava and where they are successful, alcohol replaces it in the religious ceremonies.⁵³
- 1789 The first American temperance society is formed in Litchfield, Connecticut.⁵⁴
- 1790 First U.S. Federal law is passed regarding alcohol; this law authorizes giving every soldier a daily ration of a quarter pint of rum, brandy, or whiskey. This ration continued in the Army until 1830, and in the Navy until 1862.⁵⁵
- 1791 Federal Government imposes an excise tax on whiskey.⁵⁶
- 1794 In the "Whiskey Rebellion," a large number of Pennsylvania rebels threaten insurrection challenging the government's right to tax whiskey.⁵⁷
- 1798 Benjamin Rush publishes Essays Literary, Moral and Philosophical in which he includes the first serious antitobacco tract. Commenting on the effects of tobacco, Rush states: "A desire of course is excited for strong drinks, and these when taken between meals soon lead to intemperance and drunkenness." Tobacco is also associated with idleness, uncleanness, and poor manners.⁵⁸
- 1800 Emperor Chi Ch'ing of China issues a new prohibition on cultivation and importation of opium.⁵⁹
- 1800 Up to one-third of the workers' wages in the U.S. are paid in whiskey.⁶⁰
- 1804 Thomas Trotter, an Edinburgh physician, in an essay on drunkenness states: "In medical language, I consider drunkenness, strictly speaking, to be a disease produced by a remote cause, and giving birth to actions and movements in the living body that disorder the functions of health. . . . the habit of drunkenness is a disease of the mind."⁶¹
- 1805 Morphine is isolated and described by Friedrich Wilhelm Adam Serturmer, a German Chemist.⁶²
- 1820 The Pharmacopeia is started. It is a nongovernmental listing of available drugs, their forms, dosage, etc.⁶³
- 1822 Thomas DeQuincey publishes Confessions of an English Opium Eater.
- 1826 The American Society for the Promotion of Temperance is founded in Boston. By 1833, it has over 6,000 local chapters with memberships exceeding one million.⁶⁴
- Chloral Hydrate synthesized by Riebig, although its

- hypnotic-sedative qualities are not discovered until 1869.⁶⁵
- 1834 U.S. Congress passes a law forbidding the sale of liquor to Indians.⁶⁶
- 1835 Robert McNish, a physician, reports in Anatomy of Drunkenness of a phenomenon of spontaneous combustion of drunkards, a condition reported to be well documented, whereby the body burns without even singeing the clothes. Dr. McNish recommended the use of opium in the cure for drunkenness, opium being considered by him to be the lesser of the evils.⁶⁷
- 1839 Dr. W.B. O'Shaughnessy, a British physician serving in India, publishes a review of the medical use of cannabis in India, plus his own experience treating pain, convulsions, and rheumatism with cannabis. This article published in "The Transactions of the Medical Society of Bengal" marks the introduction of cannabis into Western medical practice.⁶⁸
- 1839 From this year until 1900, over 100 articles appear in scientific journals describing the medical use of cannabis. It is prescribed for tetanus, convulsions, gonorrhea, psychosis, bronchitis, withdrawal from alcohol, morphine, and chloral hydrate, migraines, gastric ulcers, chronic rheumatism, asthma, depression, and as an anesthetic in childbirth.⁶⁹
- 1839-42 The first opium war. The British force the trade of opium on China, a trade the Chinese want prohibited.⁷⁰
- 1841 Dr. Jacques Joseph Moreau uses hashish in treatment of mental patients.⁷¹
- 1842 Sons of Temperance organizes in New York for a variety of purposes, a primary one being suppression of the liquor trade. By 1920 they report a membership of 600,000.⁷²
- 1844 Le Club des Haschischins - established in France by Avant-garde artists and writers is named and becomes known for the use of hashish and marihuana.⁷³
- 1845 The hypodermic syringe is invented by Alexander Wood.⁷⁴
- 1845 Dr. Horace Wells demonstrates the use of nitrous oxide as an anesthetic in surgery. Although nitrous oxide had been discovered in 1776 by Sir Joseph Priestly and known for its intoxicant effects, its anesthetic properties remain unknown until Wells attends a meeting in 1844 where Gardner Colton demonstrates the intoxicating effects of nitrous oxide as the beginning of his marketing N₂O in competition with alcohol. Wells notes at the meeting that a person, while under the influence of N₂O fell and cut his leg but experienced no pain. Wells' experiments with N₂O as an anesthetic agent begin the following day. Nitrous Oxide is still taken as an anesthetic and reports of its use as an intoxicant continue.⁷⁶
- 1850 The Order of Good Templars, a prohibitionist organization, is founded in New York. This is the first group to admit

- women to full membership. Rapidly growing to more than 400,000 membership, the Order becomes international in 1902 and sets up activities that greatly influence the WCTU and Anti-Saloon League. The Templars call a meeting in 1869 that culminates in the beginning of the Prohibition Party.⁷⁷
- 1851 First prohibitionist law (alcohol) takes effect in Maine. By 1855 thirteen states have prohibitionist laws, although by 1863, they are repealed in eight states and modified in four others.⁷⁸
- 1852 American Pharmaceutical Association is founded "To as much as possible restrict the dispensing and sale of medicines to regularly educated druggists and apothecaries."⁷⁹
- 1853 Aspirin is synthesized; it is not until 1898 that it is first used in medicine in the treatment of rheumatoid arthritis.⁸⁰
- 1853 Mrs. Margaret Freeland in Syracuse, New York is first to use what would become a famous prohibitionist tactic. Following denial of numerous requests to a local saloonkeeper to stop serving her husband, Mrs. Freeland procures a heavy wooden staff and smashes up the local saloon.⁸¹
- 1856 The Second Opium War occurs and the British further extend their powers to distribute opium in China.⁸²
- 1859 Paolo Mantegazza, an Italian physician, proclaims that coca leaves are a great new weapon against disease.⁸³
- 1860 Anti-tobacco forces denounce men who smoke as effeminate and warn women that they would become sterile, grow a mustache and get T.B. if they smoke.⁸⁴
- 1860 Albert Niemann isolates an alkaloid from the coca leaves and calls it cocaine.⁸⁵
- 1861 The United States Brewers Association is organized to lobby nationally for the liquor interests.⁸⁶
- 1861-65 Morphine is used so extensively during the Civil War, about 45,000 soldiers become addicted. Morphine addiction subsequently becomes known as the "soldier's disease."⁸⁷
- 1862 The Internal Revenue Act of 1862 levies a heavy tax on alcohol, thus making it an important source of government income. This law is a result of needed additional revenue to finance the Civil War.⁸⁸
- 1864 Adolf von Baeyer in Ghent synthesizes barbituric acid.⁸⁹
- 1864 Nusbaum is first practitioner to mention increased dangers of abuse of hypodermic injection of morphine.⁹⁰

- 1868 According to H.H. Cane in Opium Smoking in America and China, 1868 was the year that the first white man in America smoked opium. This man, as the story goes, was a "sporting character" named Glendenyn who spread the habit through the gamblers and prostitutes. It was noted in 1875 that the smoking of opium had spread to men, women, and children of respectable classes.⁹¹
- 1868 Horace B. Day is the first prominent author to call for the creation of special institutions for opium abusers.⁹²
- 1869 Prohibition Party is formed.⁹³
- 1869 The active ingredient in the hallucinogen fly agaric, the alkaloid muscarine, is isolated.⁹⁴
- 1870 The Oberlin, Ohio Temperance Alliance organizes and builds strategies that culminate in the creation of the Anti-Saloon League of America, the most powerful of all lobbying forces for prohibition.⁹⁵
- 1870 Dr. Clifford Allbutt of Britain publishes one of the first warnings about the addictive nature of morphine found in the English language.⁹⁶
- 1874 The Women's Christian Temperance Union is founded in Cleveland.
- 1874 Heroin is first discovered by C.R. Alder Wright, a London chemist.⁹⁷
- 1875 San Francisco passes the first narcotics control act in the U.S. for the purpose of suppressing opium smoking. In all but one state opiate distribution is regulated by law between 1897 and 1922.⁹⁸
- 1880 All importation of opium is banned in China and the death penalty is imposed for its use.⁹⁹
- 1880 Cocaine is an official drug in the U.S. Pharmacopeia.
- 1880 A second wave of prohibitionist legislation (alcohol) occurs; eight states pass prohibitory laws. Most of these states repeal the legislation by 1904.¹⁰⁰
- 1880 The use of cocaine in the treatment of morphine addiction is reported in the Detroit Therapeutic Gazette by Bently and Palmer.¹⁰¹
- 1880 Dr. David Musto describes use of cocaine during this period: "Cocaine achieved popularity in the U.S. as a general tonic, for sinusitis and hay fever, and as a cure for the opium, morphine, and alcohol habits. Learned journals published accounts which just avoided advising unlimited intake of cocaine."¹⁰²
- 1880 A Chicago study of opium eaters indicated that 169 of 235 are women and their average age is 41.4 years. An Iowa survey of 1885 states 63.8 percent are females with an average age of 46.5 years. A Michigan study of opium users claims 803 out of 1,313 are women. The opium user is primarily from the middle and upper classes. The Iowa survey, for example, reports that the majority of opium users "are to be found among the educated and most honored and useful members of society."¹⁰³

- 1882 From H.H. Kane's Opium Smoking in America and China:
"Many females are so much excited sexually by the
smoking of opium during the first few weeks that old
smokers with the sole object of ruining them have
taught them how to smoke. Many innocent and overcurious
girls have been thus seduced."¹⁰⁴
- 1882 The Act of Exclusion bars all but the wealthiest wives
of Chinese Americans from entering the country.¹⁰⁵
- 1882 The first law is enacted to make "temperance education"
required in public schools. By 1900 all states have
similar laws.¹⁰⁶
- 1882 Personal Liberty League is founded to oppose the
prohibition movement.¹⁰⁷
- 1883 Phenothiazine is synthesized but is too toxic for use.
In 1945 Promethazine (Phenergan) is developed; and of
greatest significance to the field of psychiatry is the
development by Charpentier of Chlorpromazine (Thorazine)
in 1950.¹⁰⁸
- 1883-1885 An Iowa survey finds 3,000 stores which sell opiates
across the counter. These opiates are sold without
prescriptions.¹⁰⁹
- 1884 On April 30th of this year Freud takes cocaine for the
first time.¹¹⁰
- 1884 Sigmund Freud publishes Über Coca an essay in which
he reviews the history of coca and cocaine, describes
his own experiments and experiences with cocaine, and
outlines the possible therapeutic uses of cocaine as
follows:
1. Coca as a stimulant.
 2. Use of coca in treatment of digestive disorders
of the stomach.
 3. Use of coca in cachexia (diseases involving
degeneration of tissue i.e., syphilis, typhoid,
etc.)
 4. Coca in treatment of morphine and alcohol
addiction.
 5. Coca in treatment of asthma.
 6. Coca as aphrodisiac.
 7. Coca as a local anesthetic.¹¹¹
- 1884 Freud and Bruer begin treating their friend and
colleague Von Fleischl's morphine addiction with
cocaine. They reported successful treatment and Fleischl
becomes known as the first successful morphine addiction
case cured with the use of coca. Fleischl, however,
within 2 years becomes Europe's first morphine addict
to be dependent on cocaine and experiences a toxic
psychosis from its use.¹¹²
- 1884 Carl Koller, a colleague and friend of Freud, applies
cocaine to eyes of animal and human subjects and
discovers that the anesthetic effect can be localized.
- Jan. 29, 1884 The New York Times warns editorially: "The decadence of
Spain began when the Spaniards adopted cigarettes, and
if this pernicious practice obtains among adult
Americans the ruin of the Republic is close at hand."¹¹³

- 1885 The first mention of opium use by blacks appears in an article in the North Carolina Medical Journal. The article reports three well documented cases of opium use by blacks, one in North Carolina, and others in South Carolina.¹¹⁴
- 1885 Freud's paper A Contribution to the Knowledge of the Effects of Cocaine is released on January 31.¹¹⁵
- 1885 Numerous persons criticize Freud's views on the safety of cocaine use, particularly in treating morphine addiction. Among those critics is A. Erlenneyer who calls cocaine the "third scourge of the human race" and implies Freud is responsible. Freud thus becomes the first scientist blamed for a major drug epidemic.¹¹⁶
- 1885 Freud publishes Remarks on Craving for and Fear of Cocaine in which he responds to increasing criticism of the use of cocaine. On reports of cocaine abuse and addiction, Freud maintains that the only reported cases have been morphine addicts who simply replaced one addiction with the other. He maintains that it is not habit forming in other cases. This is Freud's last publication specifically on uses of cocaine.¹¹⁷
- 1885 Dr. W.H. Halstead, who himself had used cocaine a great deal, injects cocaine into a nerve and discovers the process of nerve blocking for surgery.¹¹⁸
- 1885 The Journal of the American Medical Association reports the case of Robert Louis Stevenson who was treated with cocaine for tuberculosis. Stevenson, while under this treatment wrote the first draft of Dr. Jekyll and Mr. Hyde in three days.¹¹⁹
- 1885 Park, Davis, and Company manufactures 15 preparations of coca and cocaine, including Wine of Coca and Coca Cigarettes. The following is the first paragraph from their 1885 promotional brochure: "A simple narrative of facts regarding the coca shrub and its derivatives, and especially its alkaloid cocaine and the wonderful role its preparations now play in practice, it is believed, form a chapter in the history of medicine and surgery full of interest. . .to all who recognize the importance of a drug which through its stimulant properties, can supply the place of food, make the coward brave, the silent eloquent, free bondage, and as an anesthetic, render the sufferer insensitive to pain, and make attainable to the surgeon heights of what may be called 'aesthetic surgery,' never reached before."¹²⁰
- 1886 First mention of Sherlock Holmes' use of cocaine appears in "A Scandal in Bohemia" by Sir Arthur Conan Doyle.
- 1887-1914 "Forty-six states pass laws to regulate the use and distribution of cocaine, whereas only twenty-nine states pass such laws against the opiates."¹²¹
- 1887 Amphetamine is first synthesized.¹²²
- 1887 Congress passes a law prohibiting the Chinese from importing opium. It did, however, remain a legal activity for Americans.¹²³

- 1888 Coca Cola introduced by Asa G. Chandler, contains cocaine and is advertised to "cure your headache" and "relieve fatigue for only 5¢."¹²⁴
- 1888 The actions of peyote and mescaline are first described by Louis Lewin, a German pharmacologist and toxicologist.¹²⁵
- 1888 The National Formulary is started. It is a comprehensive listing of available medicinal drugs, their forms, dosage, etc.¹²⁶
- 1889 Dr. J.R. Black publishes his paper "Advantages of Substituting the Morphia Habit for the Incurably Alcoholic" in the Cincinnati Lancet-Clinic. He reports that morphine "is less inimical to health life than alcohol" and that it "calms in place of exciting the baser passions, and is less productive of acts of violence and crime; . . . the use of morphine in place of alcohol is but a choice of evils, and by far the lesser."¹²⁷
- 1890 A law is passed restricting the manufacture of smoking opium to American citizens.¹²⁸
- 1891 The first world convention of the WCTU is held in Boston with over 40 countries represented.¹²⁹
- 1891 Dr. J.B. Mattison warns his fellow physicians about the increasing use of injectable opiates for a wide variety of maladies. Mattison proposes the use of cannabis as a safer alternative anodyne and hypnotic.¹³⁰
- 1891 Dr. J.B. Mattison in a review of "cocaine poisoning" finds 200 cases of reported cocaine intoxication and 13 deaths from cocaine poisoning.¹³¹
- 1892 Osler's Principles and Practise of Medicine contains the first extensive written reference to drug addiction in the U.S.¹³²
- 1893 The Anti-Saloon League is founded as the political arm of the protestant push for prohibition.¹³³
- 1893-4 Report of the Indian Hemp Drug Commission concludes that there is no connection between the use of marihuana and crime, violence or bad character.¹³⁴
- 1896 The active ingredient (mescaline) of the cactus *Lophophora Williamsii* is isolated.¹³⁵
- Good Friday, 1897 Havelock Ellis first experiments with peyote by ingesting a number of mescal buttons.¹³⁶
- 1898 Heinrich Dreser "christens" heroin in a paper presented to the 70th Congress of German Naturalist and Physicians. Dreser is the chief pharmacologist at the Elberfeld Farbenfabrik of Friedrich Bayer & Company.¹³⁷
- 1898 Manges reports in the New York Medical Journal on a Dr. Hirt of Breslow who treated 35 cases of morphinism with heroin; 27 were reported cured.¹³⁸

- 1899 Oklahoma becomes the first state to outlaw peyote. The law is repealed in 1908 after Comanche Chief Quanah Parker testifies on its use in the worship of the Native American Church. 139
- Dec. 27, 1900 Carry Nation wrecks the saloon at the Casey Hotel in Wichita, Kansas. Her death in June, 1911, of Paresis a degenerative disease caused by syphilis follows a long and notorious prohibitionist career. 140
- 1900 James R.L. Daly reports in the Boston Medical and Surgical Journal "It (heroin) possesses many advantages over morphine. . . It is not hypnotic; there is no danger of acquiring the habit. . ." 141
- 1900 Fluid extract of marihuana is manufactured by such companies as Parke Davis, Squibb, Lilly, Burroughs Willcome. Grimault and Sons market marihuana cigarettes as a remedy for asthma. 142
- 1901 National German-American Alliance is organized by Dr. Charles Hexamer to teach German culture but in reality as an anti-prohibitionist political body. It becomes the strongest counterforce to prohibition until 1918 when it is investigated by the Senate and forced to disband as a result of charges of disloyalty to the United States and questionable political deals with the brewers in its fight against prohibition. 143
- 1902 Dr. T.D. Crothers, editor of Journal of Inebriety and professor of nervous and mental diseases at the New York School of clinical medicine, classifies coffee addiction with morphinism and alcoholism. He reports on pathological symptoms of coffee psychosis, and adds that "often coffee drinkers, finding the drug to be unpleasant, turn to other narcotics, of which opium and alcohol are the most common." The same article goes on to say tea can produce "a strange and extreme degree of physical depression. . . a grievous sinking may seize upon the sufferer. . . the speech may become vague and weak. By miseries such as these, the best years of life may be spoilt." 144
- 1902 Kansas and Tennessee pass the first prescription laws in the U.S. 145
- 1902 Willstatter synthesizes cocaine. 146
- 1902 Charles Town, a New York physician, describes what will come to be the addictive triad - increased dosage, craving for more drugs, and withdrawal phenomenon when usage is stopped.
- 1903 The Philippines Opium Commission is formed. Its report leads to complete prohibition on opium imports to the Philippines except for medical purposes. 147
- 1903 Cocaine is removed from Coca Cola and is replaced by caffeine. 148
- 1903 Petty warns in Alabama Medjournal about dangers of chronic heroin usage. This is one of the first warnings from medical community on dangers of heroin. 149

- 1903 The barbiturate Veronal is synthesized; about 2,500 barbiturate compounds would follow. ¹⁵⁰
- 1903 Procaine is discovered and replaces cocaine as a local anesthetic. ¹⁵¹
- 1904 Iced tea sold for the first time at the St. Louis World Fair. ¹⁵²
- 1904 Edward Bok surveys 50 women from the Women's Christian Temperance Union and finds that three out of four use patent medicines with an alcohol content of from one-eighth to one-half pure spirits. ¹⁵³
- 1905-1907 Samuel Hopkins Adams writes his "Great American Fraud Series" in Colliers Magazine. This series exposing the fraud in the drug industry is instrumental in passage of 1906 Pure Food and Drug Act. ¹⁵⁴
- 1906 Squibb's Materia Medica lists heroin as "a remedy of much value. . .it is also used as a mild anodyne and as a substitute for morphine in combating the morphine habit." ¹⁵⁵
- 1906 The Right Reverend Charles H. Brent, Episcopal Bishop and former member of Philippine Opium Commission writes President Roosevelt suggesting that due to U.S. interests in the Philippines and growing concern over opium use at home, that it would be an opportune time to call for international action to stop trafficking in opium. ¹⁵⁶
- 1906 First Pure Food and Drug Act takes effect. The law requires that medicines containing morphine, heroin, cocaine be so labeled. Later amendments requires standards of purity and require quantity of drugs be labeled accurately. ¹⁵⁷
- 1906 An ounce of pure cocaine cost \$2.50 in New York. In the 1970's an 85-90 percent pure ounce would cost about \$2,000.00. ¹⁵⁸
- 1907-1919 Thirty-four states enact statewide alcohol prohibition laws. During this period consumption of distilled liquor increases 16 percent in per capita consumption to the highest point in 45 years. ¹⁵⁹
- 1908 New York enacts a law prohibiting women from using tobacco publicly. ¹⁶⁰
- 1908 A report by the Federal Government on soft drinks states that more than 40 brands contain cocaine. ¹⁶¹
- 1908 Prohibition of drugs is established in the Philippines after the U.S. takes over the islands from Spain. ¹⁶²
- 1908 The media spread racial associations between blacks and cocaine use is highly prejudicial to the American public. In addition, the New York Times comments in an article on the growing cocaine "menace" that: "there is little doubt that every Jew peddler in the South carries the stuff."
- Feb. 9, 1909 Importation of smoking opium is prohibited by law.

- 1909 At the instigation of the U.S. primarily, the International Opium Conference convenes in Shanghai. The U.S. dominates the meeting with an inflexible position that all countries should aim at the immediate prohibition of opium. Several nations do not agree with extreme position but some agreements are reached on efforts to control opium traffic. ¹⁶³
- 1909 "The sufferer is tremulous, and loses his self-command; he is subject to fits of agitation and depression; he loses his color and has a haggard appearance. The appetite falls off, and symptoms of gastric catarrh may be manifested. The heart also suffers, it palpitates, or it intermits. As with other such agents, a renewed dose of the poison gives temporary relief but at the cost of future misery." The foregoing is a description of the abuse of coffee by Sir Clifford Albutt, M.D. and Walter Dixon, M.D. Sir Clifford is professor of internal medicine at the University of Cambridge, England, Dr. Dixon a professor of pharmacology at Kings College in London. ¹⁶⁴
- May 31, 1910 Dr. Hamilton Wright, called the Father of American Narcotic Laws, reports the following to the House Ways and Means Committee in support of anti-narcotic laws. "One of the most unfortunate phases of the habit of smoking opium in this country (was) the large number of women who have become involved and were living as common-law wives or cohabiting with Chinese in Chinatowns of our various cities." He also reports "it has been authoritatively stated that cocaine is often the direct incentive to the crime of rape by Negroes of the South and other sections of the country." ¹⁶⁵
- Dec. 19, 1911 An international opium conference convenes at the Hague in Holland. It is agreed that no treaty is valid until ratified unanimously by the conferees. A treaty is drawn up but not ratified. Plans are made for a future conference. ¹⁶⁶
- 1911 Prohibitionist Dr. Frank Gunsaulus in a work published in 1911 states that there was no "energy more destructive of soul, mind and body, or more subversive of good morals than the cigarette. The fight against the cigarette is a fight for civilization." ¹⁶⁷
- 1912 A second barbituric acid derivative, phenobarital, is introduced under the trade name Luminal. ¹⁶⁸
- 1912 Cocaine is the target of America's first propagandistic anti-drug film, D.W. Griffith's For His Son. ¹⁶⁹
- 1912 "The relation of tobacco, especially in the form of cigarettes, and alcohol and opium is a very close one. . . Morphine is the legitimate consequence of alcohol, and alcohol is the legitimate consequence of tobacco. Cigarettes, drink, opium is the logical and regular series." Towns, "The Injury of Tobacco," Century, March, 1912. ¹⁷⁰
- 1912 July, 1913 A second opium conference convenes with ratification of the treaty of Hague convention on the agenda. Again, the treaty is not approved by all countries. The U.S.

signs the treaty December 10, 1913. A third conference is called to attempt unanimity. The U.S. disregards the lack of agreement and declares the 1911 treaty to be in effect.¹⁷¹

- 1913 The Inside of the White Slave Traffic, a film produced by the Moral Feature Film Company, is one of the first films to make an association between drugs and the sexual corruption of women. Representing part of the growing pressure for Federal anti-drug films, Slaves of Morphine and The Accursed Drug are released as "exposes" and widely distributed in the U.S.¹⁷²
- 1913 Sax Rohmers first of 20 serial novels, The Insidious Dr. Fu-Manchu, is published picturing the demonic doctor planning to enslave the white world with drugs.¹⁷³
- 1913 Congress passes the Webb-Kenyon Act forbidding shipments of alcohol into states which prohibit its sale.¹⁷⁴
- 1914 In January, Congress amends the 1909 opium prohibition law by adding a prohibitive tax of \$300 per pound of opium prepared for smoking in the U.S.¹⁷⁵
- 1914 Edward Huntington Williams in the New York Times: "The list of dangerous effects produced by cocaine. . . is certainly long enough. But there is another, and a most important one, this is a temporary steadying of the nervous and muscular system, so as to increase, rather than interfere with good marksmanship. . . the record of the 'cocaine nigger' near Asheville who dropped five men dead in their tracks, using only one cartridge for each offers evidence that is sufficiently convincing"¹⁷⁶
- 1914 Edward Huntington Williams, M.D. reports in The Medical Record: (dope refers here to cocaine) "Once the Negro has reached the stage of being a 'dope taker'. . . he is a constant menace to his community until he is eliminated . . . sexual desires are increased and perverted, peaceful Negroes become quarrelsome, and timid Negroes develop a degree of 'Dutch courage' that is sometimes almost incredible. . . in the language of the police officer, 'the cocaine nigger is sure hard to kill'. . . a fact that has been demonstrated so often that many of these officers in the South have increased the caliber of their guns for the express purpose of 'stopping' the cocaine fiend when he runs amuck."¹⁷⁷
- 1914 The Literary Digest speaking of cocaine: "Under its influence are most of the daring crimes committed. . . most of the attacks upon white women of the South are the direct result of a cocaine crazed Negro brain."¹⁷⁸
- July 1, 1914 First strong anti-narcotic law in America takes effect in New York. The Town-Boylan Act provides criminal penalties for nonmedical drug trafficking.¹⁷⁹
- 1914 The Harrison Act, controlling sale of opium and its derivatives becomes law. Opposition to the bill is quieted by presenting the act as necessary to meet U.S. international treaty obligations resulting from the 1913 international opium conference. The Harrison Act states: "Nothing contained in this section (prohibiting distribution of opium, opiates, and

- cocaine) shall apply a) to the dispensing and distribution of any of the aforesaid drugs to a patient by a physician, dentist, or veterinary surgeon registered under this act in the course of his professional practice. . . .¹⁸⁰
- 1914 "If our Republic is to be saved the liquor traffic must be destroyed." Quote from Purley A. Boker, Anti-Saloon League Yearbook.¹⁸¹
- 1914 Dr. Hamilton Wright, the principal architect of the early narcotic laws, is dismissed from the State Department after refusing to take a pledge of abstinence from alcohol, a pledge demanded by Secretary of State William Jennings Bryant who had occasionally detected alcohol on Wright's breath.¹⁸²
- 1914 Congressman Hobson in defense of his resolution for a prohibition amendment to the Constitution: "Liquor will actually make a brute out of Negro, causing him to commit unnatural crimes. The effect is the same on the white man, though the white man being further evolved it takes longer time to reduce him to the same level."¹⁸³
- 1914 December 22. . . The Hobson resolution calling for a national prohibition amendment to the Constitution falls short of the two-thirds needed by a vote of 197 for to 190 against in the House of Representatives. Although failing to get the needed two-thirds, the prohibitionists demonstrate their increasing political strength.¹⁸⁴
- 1915 Six weeks after passage of the Harrison Act, the following appears as an excerpt from an editorial in the New York Medical Journal: "The really serious results of this legislation (the Harrison Act), however, will only appear gradually and will not always be recognized as such. These will be the failures of promising careers, the disrupting of happy families, the commission of crimes which will never be traced to their real causes and the influx into hospitals for the mentally disordered of many who would otherwise live socially competent lives."¹⁸⁵
- 1915 U.S. v. Jin Fuey Moy, the U.S. Supreme Court rules that possession of smuggled drugs by an addict is a violation of the Harrison Act and therefore illegal. This decision makes physicians the only legal source of narcotics left to the addicts.¹⁸⁶
- 1915 Tragedies of the Opium Traffic is published and includes the following:
 "A crusade in some of the larger cities of the country against the illegal sale of opium, cocaine and kindred drugs gathered speed when more than a dozen dealers were fined or sent to prison for selling 'dope.' Several of the fines were for \$1,000, and no doubt this will stop considerable of the illegal traffic."
 "Sixty percent of the criminals and suspected criminals at police headquarters in New York and other large centers are victims of the drug habit. . . To a trained detective the news that a petty thief, a pickpocket

or a purse snatcher has begun 'sniffing the dope' (cocaine) means that a comparatively harmless nuisance is on the way to become a reckless, brutal criminal, a menace to the life of every policeman and quite often a menace to many citizens and society in general.

"The list of officers killed by drug users is startlingly long and fatalities attributed to the 'dope fiends' are most numerous."

1915

"The very latest sort of drunkenness is that which, it has been discovered, comes from the constant inhalation of smelling salts. So great a hold has the smelling salts habit gained upon the modern woman that when she is deprived of them she experiences all the cravings that afflict the person who dearly loves liquor and finds himself deprived of it. . . ." ¹⁸⁷

1915

Pennsylvania is the first state to pass a statute specifically aimed at discouraging the distribution of anti-drug films, and a censorship report in Britain urges the elimination of the explicit drug themes in films. ¹⁸⁸

1916

The woody stalk of the hemp plant is used in the production of paper "thus the plant which later came to be termed 'Devil's Weed' began to be used in the production of Bibles." ¹⁸⁹

1917

A third wave of alcohol prohibitionist legislation results in about 25 states having some prohibitory laws by the beginning of World War I. ¹⁹⁰

1917

The president of American Medical Association endorses prohibition; the house delegates of the AMA pass the following resolution:
"Resolved, the American Medical Association opposes the use of alcohol as a beverage; and be it further resolved, that the use of alcohol as a therapeutic agent should be discouraged." By 1928, physicians make an estimated \$40 million a year writing prescriptions for whiskey. ¹⁹¹

1918

A number of articles in the New York Times during this year charged that German agents were smuggling drugs to American army bases and public schools. The following excerpt from a December 18 issue is typical of the tone: "Into well-known German brands of toothpaste and patent medicines. . . naturally for export only. . . habit forming drugs were to be introduced; at first a little, then more, as the habit grew on the non-German victim and his system craved ever increasing quantities . . . in a few years Germany would have fallen upon a world which cried for its German toothpaste and soothing syrup. . . a world of 'cokeys' and 'hop fiends' which would have been absolutely helpless when a German embargo shut off the supply of its pet poison." ¹⁹²

1919

United States v. Doremus. In a divided decision (5 to 4) the Supreme Court upholds the constitutionality of the Harrison Tax Act of 1914. They rule the tax valid, although obviously not implemented for purposes of revenue. ¹⁹³

- 1919 Webb v. United States. The U.S. Supreme Court rules that for a physician to prescribe morphine to an addict which is "not in the course of professional treatment in the attempted cure of the habit" but is at a dosage "sufficient to keep him comfortable by maintaining his customary use" is not within the meaning of the physician exemption of the Harrison Act and, therefore illegal.¹⁹⁴
- 1919-1938 25,000 physicians are indicted for violation of the Harrison Act, and 3,000 serve prison sentences. Thousands more lose their medical licenses.¹⁹⁵
- 1919 The Association against the Prohibition Amendment is organized as a lobbying force against passage of the 18th amendment. The Association is successful in getting the repeal of a number of the State prohibition enforcement laws.¹⁹⁶
- 1919 "Prohibition was presented as 'first and foremost a patriotic program of with the war.' An incessant volley of dry propaganda preached that all patriots must be prohibitionists to save food for the starving allies; that German-Americans were guilty of spying and treason and drinking beer; that the German armies had committed their atrocities under the influence of alcohol; that the worst Kaiser of all was the liquor Kaiser; and that peace without victory and a land fit for heroes were only possible in an earth free from the jack boots of Hun brewers. Indeed, not only would the war bring about national and international prohibition, but lack of the ideology of prohibition had brought about the World War."¹⁹⁷
- 1919 The 18th Amendment (prohibition) is added to the constitution.
- 1919 The Volstead Act, the enforcement arm of national prohibition, is passed over President Woodrow Wilson's veto and becomes law.
- 1919 In the first six months after the Volstead Act, some 15,000 doctors and 57,000 druggists and drug suppliers apply for licenses to prescribe and sell alcohol.¹⁹⁸
- 1919 During the 14 years of prohibition there were an average of 10 million doctor's prescriptions for more than one million gallons of alcohol per year.¹⁹⁹
- 1919 The Internal Revenue Commissioner speaking at the beginning of national prohibition: "We will have little difficulty in the work of enforcement."²⁰⁰
- 1920 Jin Fuey Moy v. United States. The U.S. Supreme Court rules that a physician could not legally prescribe morphine "to cater to the appetite or satisfy the craving of one addicted to the use of the drug."²⁰¹
- 1920 Native American Church is established, with the use of peyote cactus as a religious sacrament.²⁰²
- 1920 The U.S. Department of Agriculture publishes a pamphlet urging Americans to grow marihuana for profit.²⁰³
- 1921 Cigarettes are illegal in 14 states.²⁰⁴

- 1922 Dr. William Stewart Halsted dies, ending a brilliant career as one of America's greatest surgeons and one of the founders of Johns Hopkins Medical School. It would be revealed in 1969 that, following a bout with cocaine addiction early in his career, Halstead remained addicted to morphine throughout his life. Dr. Osler, a colleague and confidant, reports that Halsted was never able to reduce his daily dosage below three grains and adds "on this he could do his work comfortably and maintain his excellent physical vigor." Three grains (180 milligrams) is several times the equivalent daily dosage for a New York City street addict in the 1970's .
- 1922 In United States v. Behrman, the U.S. Supreme Court rules that it is not legitimate for a physician to prescribe drugs to an addict regardless of the purpose or "good faith" of the doctor. This decision shuts off all legal access to drugs for the addict and redefines his status from patient to that of criminal. The Treasury Department began immediately threatening doctors who were treating addicts with prosecution.²⁰⁵
- 1922 Canada adds whipping and deportation to its drug penalties.²⁰⁷
- May 25, 1922 The Narcotic Drugs Import and Export Act is approved. This is an extensive revision of the 1909 act that controlled the amounts and purposes for which opium could be imported and exported and established severe penalties for violation of the Harrison Act.²⁰⁸
- 1923 Aleister Crowley publishes his The Diary of a Drug Fiend allegedly based on Crowley's experience with a group of addicts he took to Sicily and allowed to indulge their drug needs to the fullest.²⁰⁹
- 1923 The drug-related deaths of several film stars prompts the movie industry to distribute a number of anti-drug films; such films released in 1923 include The Drug Traffic, The Greatest Menace, The Drug Monster, Human Wreckage, and The Girl Next Door.²¹⁰
- 1924 The manufacturing and importation of heroin in U.S. is prohibited by law.²¹¹
- 1924 Louis Lewin, an eminent authority on pharmacology writes: "The juvenile female flower of the nation, the 'Emancipata femans vulgaris' (his term for the feminists of the day), who should bear fruits in time to come, frequently fail to do so because the foolish consumption of cigarettes has impregnated the sexual organs with smoke and nicotine and keeps them in a state of irritation and inflammation."²¹²
- 1924 Three million gallons of sacramental wine is withdrawn from government storehouses for use in religious services.²¹³
- 1925 The first anti-marihuana film, Notch Number One, is released. It deals with the efforts of a ranch foreman to keep his hired hands away from marihuana. A second Western anti-marihuana film of this year is Death Weed.²¹⁴

- 1925 In Linder v. United States, the U.S. Supreme Court rules that addiction is a disease worthy of medical treatment and that it is not illegal for a physician acting in good faith and according to fair medical standards to prescribe moderate amounts of narcotics for the purpose of alleviating withdrawal symptoms. This ruling has minimal effect as the Treasury Department continues to threaten physicians with prosecution under the earlier Behrman decision. Dr. Linder's exoneration costs him \$30,000 and his medical license for 2 years.²¹⁵
- 1925-29 Forty persons in every million in the U.S. die from drinking "bad" alcohol.²¹⁶
- 1925-Late 1930's Earle Albert Rosell and his son Robert, probably the most famous of the anti-marihuana crusaders, assert that the "weed of madness" corrupts all morality, induces violent crimes and leads to insanity. They also warn that the increased use of tobacco could lead to a takeover of America by the reefer peddlers. They continually assert that the use of tobacco nourishes an appetite for "something stronger."²¹⁷
- 1926 The Rolleston Committee under direction of Sir Humphrey Rolleston, President of the Royal College of Physicians, presents its report on narcotic policy recommendations to the Minister of Health. The committee agrees that a steady decrease in dose with a goal of abstinence is the object of medical treatment, but the committee concludes that there are addicts to whom the indefinite and continued administration of heroin or morphine may be necessary. Most importantly, they recommend that the decision as to the most effective treatment for each addict should be the responsibility of the attending physician and should not be an area for legislative or judicial intrusion. The Rolleston report shapes British narcotic policy for the next 42 years.²¹⁸
- 1927 Gordon Alles synthesizes amphetamine. ²¹⁹
- 1928 Individuals sentenced for narcotic offenses comprise one-third of the total prison population. Although prohibition is in effect, this is twice the number of persons incarcerated for liquor violations.²²⁰
- 1928 Henry Ford speaks in support of prohibition: "If the law were changed, we'd have to shut down our plants. Everything in the United States is keyed up to a new pace which started with prohibition. The speed at which we run our motor cars, operate our intricate machinery, and generally live, would be impossible with liquor. There is no chance even for modification."²²¹
- Jan. 19, 1929 President Coolidge signs a bill to provide two "narcotic farms" for treatment of addicts.
- 1930 The National Advocate reports a doctor's opinion that "sixty percent of all babies born of mothers who are habitual smokers die before they are two years old."²²²
- 1930 The Federal Bureau of Narcotics is created with Harry J. Anslinger appointed Commissioner. This marks the beginning separation of alcohol and drug control policies at an organizational level.²²³

- 1931 From an anti-tobacco publication "Fifty percent of our insanity is inherited from parents who were users of tobacco; sometimes the victim is a smoker himself, which hastens it on. Thirty percent of insanity cases are caused direct from cigarette smoking and the use of tobacco. .: 224
- 1932 In this year, 44,678 persons receive jail sentences for violations of the Volstead Act. 225
- 1932 Amphetamine is first marketed under the trade name Benzedrine. 226
- 1932 Aldous Huxley's Brave New World is released describing a mechanized future world in which a drug called soma is used to tranquilize all restlessness and discomfort. 227
- 1933 John Collier, U.S. Commissioner of Indian Affairs, and Harold L. Ickes, Secretary of the Interior, jointly prohibit "absolutely an interference by the Indian Bureau with the religious practices of the Native American Church (Peyotl Society)." 228
- Dec. 5, 1933 The 21st Amendment is officially in effect. Alcohol prohibition is ended.
- 1934 The diagnostic category "drug addiction" appears for first time in American Psychiatric Association Standard Classified Nomenclature of Diseases. 229
- 1934-37 Thousands of addicts are executed and imprisoned for life in China in a new prohibitionist program implemented by Generalissimo Chiang Kai-shek. 230
- 1935 Dr. Thomas Ratigan is indicted for providing regular administration of morphine for addicts. Dr. Ratigan admits treating 30-40 addicts a day. Following his conviction, he states "I have the solution to the problem and I am carrying it out. I am proud of my conviction. If administering morphine to confirmed addicts is a crime, I am a criminal." Before entering McNeil Island Penitentiary in 1937, Ratigan says "My solution to the narcotics problem by administering to addicts, is the only real solution and will be adopted in the future." 231
- May 25, 1935 A Federal narcotics farm opens in Lexington, Kentucky.
- 1935 The first group of Alcoholics Anonymous is formed in Akron, Ohio.
- 1935 American Medical Association passes resolution that "alcoholics are valid patients." 232
- 1935 An advertisement distributed by the Federal Bureau of Narcotics: "Beware! Young and Old -- People in All Walks of Life! This (picture of a marihuana cigarette) may be handed you by the friendly stranger. It contains the Killer Drug 'Marijuana' -- a powerful narcotic in which lurks Murder! Insanity! Death!" 233
- 1936 The March issue of Scientific American reports: "Marijuana produces a wide variety of symptoms in the user, including hilarity, swooning, sexual excitement. Combined with intoxicants, it often makes the smoker vicious, with a desire to fight and kill." 234

- 1936 The Drug Branch of the British Home Office lists a total of 616 known addicts in Britain. Nine out of ten are addicted to morphine and 147 of the 616 are physicians.²³⁵
- 1936 The International Narcotic Education Association in conjunction with the Narcotics Bureau publishes Marijuana or Indian Hemp and its Preparations which includes the following:
- "Prolonged use of marijuana frequently develops a delirious rage which sometimes leads to high crimes such as assault and murder. Hence marijuana has been called the 'killer drug.' The habitual use of this narcotic poison always causes a very marked mental deterioration and sometimes produces insanity. Hence marihuana is frequently called 'loco weed.'"
- Marihuana often gives man the lust to kill unreasonably without motive. Many cases of assault, rape, robbery and murder are traced to the use of marijuana." ²³⁶
- 1937 Hearings on the Marihuana Tax Act took up parts of five days, consisted of information from 12 witnesses, three of which represented the Treasury Department which was proposing the law. The essence of the supportive testimony is summed up in the following interaction: Senator Davis; "How many (marihuana) cigarettes would you have to smoke before you got this vicious mental attitude toward your neighbor?"
- Mr. Anglinger; "I believe in some cases one cigarette might develop a homicidal maniac, who probably would kill his brother...probably some people could smoke five before it takes effect, but experts agree that the continued use leads to insanity." ²³⁷
- 1937 Interaction during hearings on the Marihuana Tax Act: Congressman Dingell; "I am just wondering whether a marihuana addict graduates into heroin, or opium, or a cocaine user."
- Mr. Anslinger; "No Sir, I have not heard of a case of that kind. I think it is an entirely different class. The marihuana addict does not go that direction."
- Harry Anslinger, head of the Bureau of Narcotics reverses this position eighteen years later (see 1955 annotation). ²³⁸
- 1937 The Marihuana Tax Act becomes law.
- August 2, 1937 President Roosevelt signs the Marihuana Tax Act into law.
- 1937 Of the 48 States, 46 have laws against possession and sale of marihuana. Most penalties were similar to those for heroin, cocaine, and most states erroneously designated it a narcotic. ²³⁹
- 1938 Federal hospital in Fort Worth, Texas opened.
- 1938 FDA adds a requirement that medicines be established and proved to be safe and be labeled adequately as to directions for use. ²⁴⁰

- 1939 Meperidine (Demerol) is introduced as a synthetic narcotic that is thought to be free of the risk of addiction. But it joins Hycodan, Alvodine, and Leritine which follows it in an endless list of effective synthetic narcotics all of which carry the potential for addiction.²⁴¹
- 1938 Dr. Albert Hoffmann, a chemist at Sandoz Laboratories in Switzerland synthesizes LSD. Five years later he accidentally ingests some and reports on its effects.²⁴²
- 1939 The "Big Book" - Alcoholics Anonymous is published outlining the tenants of AA.
- 1941 A March 1 issue of Saturday Evening Post includes the Jack Anderson article on Alcoholics Anonymous. This article more than any other event sparks national and international interest in AA and results in a dramatic increase in AA groups all over the U.S. Membership jumps from 2,000 to 8,000 by the end of 1941.²⁴³
- 1941 Nalline is first synthesized. A semisynthetic derivative of morphine, nalline reverses the effects of morphine and other opiates making it useful in the treatment of opiate overdoses. When nalline is administered to an addict withdrawal symptoms occur (Nalline Test).²⁴⁴
- Dec. 11, 1942 The Opium Poppy Control Act is approved. This act forbids production of the opium poppy in the U.S. except under license for medical and scientific needs.²⁴⁵
- 1942 The first A A prison group is established in San Quentin, California.
- 1944 June; AA Grapevine is established.
- 1945 The New York Academy of Medicine at the request of Mayor LaGuardia of New York conducts an exhaustive study of marihuana and concludes the following:
- 1) Smoking marihuana does not cause physical or mental deterioration.
 - 2) Although potentially habit forming, marihuana does not produce addiction in the medical sense.
 - 3) Marihuana does not lead to criminal or sexual misconduct.
 - 4) No deaths from marihuana have ever been recorded.
 - 5) The publicity concerning the catastrophic effects of marihuana smoking in New York is unfounded.²⁴⁶
- Sept. 1, 1948 Actor Robert Mitchum is arrested for possession of marihuana. He is found guilty January 10, 1949, but this is expunged from the record 2 years later.²⁴⁷
- 1948 The United Nations designated the World Health Organization as the agency responsible for international narcotics control.²⁴⁸
- 1948 Legal use of heroin (in medicine) is discontinued.²⁴⁹
- 1949 Nelson Algren publishes his The Man With the Golden Arm describing the difficult survival of Frankie Machine, a heroin addict, in postwar Chicago.

- 1949 American Psychiatric Association recognizes Alcoholics Anonymous.
- 1950 Drs. Anthony K. Busch and Warren C. Johnson publish first report on psychotherapeutic uses of LSD. This initial work is done with 21 hospitalized psychotic patients.
- 1950 Meprobamate (Miltown, Equanil) is synthesized by Ludwig Piech in 1950.²⁵⁰
- 1950 Five percent of all persons who commit suicide in the United States use drugs as a method of suicide; by 1964 it is 12 percent; by 1968 one-third of all suicides involves the use of a prescribed drug.²⁵¹
- 1951 The Boggs Act establishes mandatory minimum sentences on all narcotic offenses and also eliminates parole for drug offenses. Many State legislatures follow with "little Boggs Acts."²⁵²
- 1951 A Baltimore study states that 44 percent of homicides shows alcohol in both killer and victim. An Ohio study 3 years later reveals that 43 percent of those who committed homicides had been drinking.²⁵³
- 1952 Tea drinking in England reaches such proportions that a medical member of the House of Commons raises the question of "addiction."²⁵⁴
- 1952 Abram Hoffer and Humphry Osmond report that the administration of LSD is proving to be a therapeutic experience for the alcoholic in treatment.²⁵⁵
- 1952 The Rochin case decision ends the police practice of pumping out the contents of a drug users stomach in order to charge him with failure to pay the tax on the drug.²⁵⁶
- 1953 A Texas law is passed making possession of a "contrivance used in smoking a narcotic drug" (Pipes, roach clips) a felony punishable by penalty of 2-10 years.²⁵⁷
- 1953 William Burroughs publishes his Junkie, a realistic description of the life of the addict and the culture which supports his addiction.
- 1953 Partially due to American influence, and particularly that of Harry Anslinger on international opinions about narcotic control and specifically the view that heroin should be replaced in medicine with alternative drugs, the British Medical Association and Medical Research Council drop heroin (diamorphine) from Pharmacopia.²⁵⁸
- 1954 The United Nations Commission on Narcotic Drugs approves a resolution that all countries should ban heroin. When the British Home Office tries implementing the ban on heroin, British physicians denounce the ban as an unprecedented infringement on the rights of physicians. The British Medical Association calls for the continued availability of heroin and 12 teaching hospitals in London unaimously oppose the ban. The Home Office withdraws the proposed ban. Heroin is again listed in the British Pharmacopocia.²⁵⁹

- 1954 Anslinger charges before the United Nations that Communist China is responsible for distributing narcotics to the free world and that the Communist regime is supported by money made from narcotics.²⁶⁰
- 1954 Amphetamines become available only by physician prescriptions.²⁶¹
- 1955 Texas drug laws are revised to make first offense possession of marihuana punishable by 2 years to life imprisonment. This law remains on the books until 1973. During this period possession of marihuana is deemed more serious than assault with intent to murder (maximum 25 years), kidnapping (maximum 25 years) castration (maximum 15 years), arson (maximum 25 years), administering poison (maximum 5 years), assault with a prohibited weapon (maximum 5 years), murder without malice (maximum 5 years), and burglary (maximum 12 years).²⁶²
- 1955 The New York Academy of Medicine proposes "taking the profit out of the illicit trade by furnishing drugs to addicts at low cost under Federal control." A Senate subcommittee headed by Price Daniel rejects this proposal and suggests that in light of the small percentage of addicts cured in treatment that the incurables should be permanently confined, an approach the committee admits would require additional prisons to accommodate 50,000 persons.²⁶³
- 1955 Harry Anslinger, Commissioner of the Bureau of Narcotics states before Senate subcommittee "That is the great problem and our great concern about the use of marihuana, that eventually if used over a long period, it does lead to heroin addiction."²⁶⁴
- July 18, 1956 The Narcotic Drug Control Act becomes law. Among other provisions, is one calling for the death of a person over 18 for selling heroin to a person under 18.²⁶⁵
- 1956 The American Bar Association and the American Medical Association set up the Joint Committee on Narcotic Drugs who in their 1958 Interim Report recommends the establishment of an experimental clinic (in the District of Columbia) to maintain addicts on legal narcotics.²⁶⁶
- 1956 A citizens advisory group to the Attorney General in California proposes that addicts certified as incurable receive maintenance doses of narcotics to remove them from the illicit drug market.²⁶⁷
- 1957 A Statute enacted in Indiana typifies the kind of "Catch-22" in which the addicts often found themselves. The Act states: "A person addicted to the unlawful use of narcotic drugs is hereby declared dangerous to the public peace and to the welfare and safety of the citizens of the State; and it shall be unlawful for any such person to go on, into or upon any street or public highway, alley or public place unless such person can present positive proof that he is under the care of a licensed physician for the treatment of such addictions." Later on in the same statute it is declared "unlawful for any duly registered physician, licensed veterinarian or licensed dentist to write, issue, deliver or dictate either directly or indirectly any prescription to or for any habitual user of any drugs enumerated in this section."²⁶⁹

- 1958 Synanon, the first therapeutic community for the treatment of drug dependence operated by ex-addicts is established in California by Charles Dederich and will subsequently provide the initial model for other such therapeutic communities across the United States.²⁷⁰
- 1959 The First full account of glue sniffing for the purpose of intoxication appears in Empire, a supplement to the Denver Post. A series of stories follows, magnifying the warnings against inhaling the glue. The warnings serve as a fuse and a problem unheard of before 1959 produced 278 arrests for glue sniffing in 1961. In retrospect, it appears the Denver Post created the "drug epidemic" they continued to report.²⁷¹
- 1959 - 1961 A mild and supposedly safe sedative (Thalidomide) taken by pregnant women deforms the limbs and other organs of several thousand infants in West Germany, England, Canada, and other countries.²⁷²
- Late 1950's Some San Francisco Bay Area Physicians prescribe injections of amphetamines for treatment of heroin addiction.²⁷³
- 1960 - 70 Roche Labs spend an estimated \$150 to \$200 million on the promotion of Librium and Valium.²⁷⁴
- 1960 The Narcotic Manufacturing Act takes effect. Its purpose is to provide a system for licensing narcotics manufacturers and to establish manufacturing quotas on all narcotics drugs.
- April 17, 1960 New York Governor Rockefeller signs legislation providing for involuntary commitment of narcotic addicts to State hospitals.²⁷⁵
- 1960 - 61 Professors Leary and Alpert begin experiments on Harvard graduate students using psilocybin.²⁷⁶
- 1961 In reviewing his years and experiences as head of the Bureau of Narcotics, Harry Anslinger reveals that he has personally arranged for regular supplies of drugs for an addicted congressman and an addicted Washington society lady, and arranged to keep them out of the hands of police.²⁷⁷
- 1961 The United Nations Single Convention on Narcotic Drugs is drawn up and continues to be the primary basis for international narcotic laws.²⁷⁸
- July 13, 1962 Journal of the American Medical Association reports LSD as a new black market drug.
- 1962 Taxes on manufactured tobacco produces a revenue of \$2,030,304,000 for the U.S. Treasury. This same year \$374 million worth of tobacco is exported making it the third ranking dollar value agricultural export.²⁷⁹
- 1962 In Robinson v California the U.S. Supreme Court rules that a California law making it a crime "to be addicted to the use of narcotics" is unconstitutional and in violation of the 8th and 14th Amendments.²⁸⁰
- August 17, 1962 Henry Giordano succeeds Anslinger as Chief of the Federal Bureau of Narcotics.²⁸¹

- 1962 Followup studies in 1962 and 1963 of Lexington Hospital alumni show that 93 and 97 percent, respectively, have returned to the use of narcotics.²⁸²
- 1963 President Kennedy's Advisory Commission on Narcotic and Drug Abuse urges in its final report "that properly designed experiments should be initiated to explore whether ambulatory clinics for the dispensation of maintenance doses to addicts are feasible." ²⁸³
- 1963 On April 17, 1963 editorial in the Wall Street Journal recommends that the U.S. "start searching for ways in which the tragic incurables can be put on sustaining doses that will keep them from desperate acts." ²⁸⁴
- May, 1963 Timothy Leary and Richard Alpert are expelled from Harvard for experiments with psilocybin.
- 1963 Tobacco sales total \$8.08 billion dollars of which \$3.3 billion go to the local, State, and Federal Government in taxes. ²⁸⁵
- Jan. 11, 1964 Report of the Surgeon General's Advisory Committee releases on Smoking and Health.
- 1964 The World Health Organizations Expert Committee on Addiction Producing Drugs recommends that the term drug dependence replace the terms drug addiction and drug habituation. Drug dependence is defined as "a state of psychic or physical dependence, or both, on a drug arising in a person following administration of that drug on a periodic or continuing basis. The characteristics of such state will vary with the agent involved, and these characteristics must always be made clear by designating the particular type of drug dependence in each specific case; for example, drug dependence of morphine type, of amphetamine type, etc." ²⁸⁶
- 1964 Dr. Raphael Mechoulam of Israel isolates dehydrocannabinol as the active ingredient in marijuana and demonstrates that it can be produced synthetically. ²⁸⁷
- 1964 Of 70,000 first admissions of males to State mental hospitals, more than 15,000 (22 percent) are given a diagnosis of alcoholism at admission. ²⁸⁸
- August 24, 1964 The California Supreme Court rules that Peyote use in Indian religious ceremonies does not violate the law. ²⁸⁹
- 1965 Sale of peyote to the general public becomes illegal. Prior to this time peyote could be bought by anyone from a number of supply houses in Texas, Arizona, and New Mexico. ²⁹⁰
- 1965 An estimated 30,000 to 40,000 psychiatric patients received LSD therapeutically throughout the world. Papers report its use in treatment of epilepsy, depression, alcoholism, psychosis and the terminally ill. ²⁹⁰
- February, 1965 The first large scale methadone maintenance program is established at the Bernstein Institute in New York. This program is based on the research of Vincent Dole, M.D. and Marie Nyswander, M.D., which has been conducted under a grant for the Health Research Council of New York City since 1963. ²⁹²

- 1965 Dr. Jerome H. Jaffe in Goodman and Gillman: "... Much of the ill health, crime, degeneracy, and low standard of living are the results not of drug effects, but of the social structure that makes it a criminal act to obtain or to use opiates for their subjective effects..²⁹³
- 1965 The Cigarette Labeling and Advertising Act of 1965 appropriates \$2 million to set up the National Clearing House for Smoking and Health and required cigarette packages to bear the label "caution, cigarette smoking may be hazardous to your health."²⁹⁴
- 1965 In this year, nearly five million arrests are made in the U.S. for all offenses. Over 1,535,000 are for public drunkenness (31 percent). An additional 250,000 are arrested for driving while intoxicated.²⁹⁵
- Dec. 23, 1965 Timothy Leary is jailed in Laredo, Texas for possession of marihuana. On March 11, 1966 he is sentenced to 30 years on the above charge and fined \$30,000. On September 19, 1966 Leary announces the creation of the League of Spiritual Discovery (LSD). On May 19, 1969 the Supreme Court overturned Leary's conviction on grounds of self incrimination and in so doing declares the Marihuana Tax Act of 1937 unconstitutional.
- 1968 Bureau of Narcotics and Dangerous Drugs (BNDD), created by a merger of Federal Bureau of Narcotics (FBN) in the Treasury Department and the Bureau of Drug Abuse Compliance (BDAC) in Department of HEW.³⁰¹
- 1968 Recommendations for changes of British narcotic policy made by the Brain Committee are implemented. The changes are:
- 1) The establishment of addiction treatment clinics.
 - 2) No doctors outside the clinics can prescribe heroin or cocaine to addicts.
 - 3) All doctors are required to notify the Home Office of new cases of addiction.
- The changes result from an increase in addiction created primarily by a small number of physicians irresponsibly distributing prescriptions for heroin.³⁰²
- 1968 Abram Hoffer, M.D. and Humphry Osmond, M.D. claim "strong evidence supporting the use of LSD in a treatment program for alcoholism....it is one of the brightest hopes for the victims of a long neglected, little understood disease."³⁰³
- 1968 Alaska, California, and Vermont become the first States to reduce penalties for possession of marihuana.³⁰⁴
- 1969 Nebraska reduces first offense possession of marihuana to a misdemeanor punishable by only 7 days in jail.³⁰⁵
- 1969 Operation Intercept is instigated federally to block importation of marihuana from Mexico. This effort is thought by some to be responsible for the increased use of more dangerous drugs in the U.S.³⁰⁶

- 1969 "Cigarette smoking is the greatest preventable cause of illness, disability and premature death in this country," the Surgeon General, U.S. Public Health Service.³⁰⁷
- 1969 U.S. production of: barbiturates, 800,000 pounds - value \$2.5 million; tranquilizers, 1.5 million pounds - value \$7 million.³⁰⁸
- October 27, 1969 Anthropologist Margaret Mead says the marihuana controversy is more dangerous than the drug itself and urges legalization.³⁰⁹
- August 16, 1969 Woodstock "happens" in Bethel, New York.
- February, 1969 Federal Communications Commission proposes a ban on all cigarette advertising on radio and television. The proposal finally approved takes effect midnight January 1, 1971.³¹⁰
- 1969 Gross sales for alcoholic beverage industry total \$12 billion.³¹¹
- 1969 Congress appropriates \$17 million for drug law enforcement.³¹²
- 1969 Americans spend over \$1.2 billion on 2.9 billion pounds of coffee.³¹³
- 1969 Supreme Court rules that punishment for nonpayment of the marihuana tax is unconstitutional.³¹⁴
- 1969 The Gallup Poll estimates that 10,000,000 Americans have smoked marihuana.³¹⁵
- 1970 "No research demonstrates that any ingredient as found in cigarette smoke causes, cardiovascular, respiratory, or other illnesses in humans. No research has demonstrated any physiological process through which cigarette smoke results in disease."³¹⁶
- 1970 The Federal Government collects \$2 billion dollars in taxes on cigarettes, or \$6 million dollars a day, for fiscal year 1970.³¹⁷
- 1970 In Alabama, the penalty for possession of one marihuana cigarette is minimum of 5 years. Suspended sentences and probation are not allowed.
- In Colorado, first offense sale of marihuana, is a minimum of 10 years.
- In Georgia, first offense sale of marihuana is punishable by life imprisonment; second offense by death.
- In Illinois, sentence for first offense sale of marihuana is 10 years to life.
- In Louisiana, sentence for possession of marihuana for persons over 21 for first offense is minimum of 5 years at hard labor and first offense sale of marijuana to persons under 21 is 30 years of hard labor and could be the death sentence.

- In Rhode Island, first sale of marihuana is a minimum of 10 years.
- In Utah, a life sentence is possible for first sale.³¹⁸
- 1970 By the end of 1970, 32 states reduce penalties for possession of marihuana.³¹⁹
- 1970 214 million prescriptions (including refills) for psychotherapeutic drugs are filled in American drugstores.³²⁰
- 1970 Dr. Jerome H. Jaffe, Director of Special Action Office for Drug Abuse Prevention: "The addict who is able to obtain an adequate supply of drugs through legitimate channels and has adequate funds usually dresses properly, maintains his nutrition, and is able to discharge his social and occupational obligations with reasonable efficiency. He usually remains in good health, suffers little inconvenience, and is, in general, difficult to distinguish from other persons."³²¹
- 1970 "With opium at \$25 per kilogram, the raw material cost of the heroin in a \$5 New York City bag is only about a quarter of a cent."³²²
- 1970 U.S. Department of Health Education and Welfare reports "An estimated 1.3 billion prescriptions were filled in 1970 at a consumer cost of \$5.6 billion. Of these 17 percent, or 217 million, were for psychotherapeutic drugs (anti-anxiety agents, anti-depressants, anti-psychotics, stimulants, hypnotics, and sedatives)."³²³
- 1970 Passage of Comprehensive Drug Abuse Prevention and Control Act replaces previous acts governing control of narcotics, marihuana, sedatives and stimulants and places them under the control of the Department of Justice. Charges for possession of some drugs are reduced to a misdemeanor and penalties are reduced. Provisions are included for rehabilitation, research, and education. The "no-knock" law is part of the act.
- 1971 Eight billion doses of 31 different amphetamines and meta-amphetamine preparations are manufactured by 15 drug companies.³²⁴
- June, 1971 Special Action Office for Drug Abuse Prevention is established to coordinate Federal action in research, prevention, training, education, and treatment. (excluding alcohol and tobacco).³²⁵
- 1971 Charles Dederich, founder of Synanon, estimates the relapse rate for Synanon graduates in the neighborhood of 90 percent.³²⁶
- June, 1971 President Richard M. Nixon states that "The problem has assumed the dimensions of a national emergency... America's Public Enemy No. 1 is drug abuse."³²⁷
- 1972 Charles Savage, M.D. and O. Lee McCabe, Ph.D. publish a report describing the use of LSD in the treatment of narcotic addiction. They state: "...psychedelic therapy offers potential for being a safe, short term method of rehabilitating the chronic, hard core heroin addict."³²⁸

- 1972 Edward Brecher - "The only possible conclusion is that the overwhelming majority of patients on the Dole-Nyswander program, after years as criminals on heroin, lead a law abiding life on methadone maintenance and the longer they stay on methadone, the more law abiding they become." ³²⁹
- 1972 Drug Abuse Office and Treatment Act provides for the establishment of Special Action Office for Drug Abuse Prevention (SAODAP) to coordinate nine Federal agencies involved in drug abuse activities. Provisions are made for the creation of the National Institute on Drug Abuse to carry on work of SAODAP. NIDA begins functioning in April, 1974.
- 1972 The Knapp Commission investigation of widespread corruption in the New York City Police Department reveals that the disappearance of the 50 pounds of pure heroin from the NYC Police Department which had been seized in the famous "French Connection" case was only part of 330 a total of 400 pounds of illicit drugs that had vanished.
- 1972 The Office of Drug Abuse Law Enforcement (ODALE) is created by Executive order in January.
- 1972 The narcotic addict count in Britain in December is 1,619. In January of 1973, the Bureau of Narcotics and Dangerous Drugs estimates the U.S. addict population to be 626,000. ³³¹
- 1972 From June 1971 to April of 1972, the number of persons enrolled in methadone maintenance jumps from 20,000 to 65,500. ³³²
- 1972 The National Commission on Marihuana and Drug Abuse releases its report of marihuana entitled Marihuana: A Signal of Misunderstanding in which it recommends that possession of marihuana for personal use would no longer be an offense, although "marihuana possessed in public would remain contraband subject to summary seizure and forfeiture."
- 1972 The street addict in New York City pays \$15 a grain for heroin which under the English method of distribution would cost the addict 14 cents. ³³³
- 1973 Federal drug supply reduction efforts are consolidated under the Drug Enforcement Administration (DEA).
- 1973 A revision in law makes Texas the last State to remove a statute that could provide life imprisonment for a first offense possession of marihuana. ³³⁴
- 1973 Twenty drug companies distribute more than 2 billion free drug samples to physicians and send "reminder gifts" valued at more than \$14 million to doctors, nurses, and assorted health professionals. ³³⁵
- 1973 Upwards of 160,000 Americans die through overdoses or allergic reactions to prescribed drugs. ³³⁶
- 1973 More than 20,000 AA groups worldwide have an estimated 650,000 members. ³³⁷

- 1973 Marc Alden in his book Cocaine - "It's possible to get a habit just from handling the drug." 338
- 1973 Michael R. Sonnenreich, Executive Director of the National Commission on Marihuana and Drug Abuse, declares; "About four years ago we spent a total of \$66.4 million for the entire Federal effort in the drug abuse area... this year we have spent \$796.3 million, and the budget estimates that have been submitted indicate that we will exceed the \$1 billion mark. When we do so, we become for want of a better term, a drug abuse industrial complex." 339
- December, 1973 The National Institute of Drug Abuse is created by reorganization within HEW. NIDA assumes all of SAODAP's functions except coordination.
- 1974 The U.S. has an estimated nine million alcoholics and problem drinkers. Each year 30,000 highway deaths are related to alcohol. Half of all homicides and a third of the suicides are alcohol related. Over 5.5 million arrests a year are for misuse of alcohol at a cost to the taxpayer of \$100 million a year. A cost of \$10 billion yearly is attributed to lost work related to alcohol. The total cost to the nation has been calculated at 15 billion dollars a year. 340
- 1975 American consumers spend more than \$3.1 million per hour, every hour of the day, every day, for a total of \$27.2 billion dollars per year on alcohol. 341
- 1975 The dollar cost of drug abuse is estimated at \$10 billion a year by a SAODAP study. Breakdown is as follows:
 \$6.3 billion - drug-related property crime
 \$620 million - criminal justice system costs
 \$1.5 billion - lost productivity cost
 \$1.1 billion - direct drug program cost.
 Dollar cost of alcoholism estimated at \$25 billion annually.
- 1975 Federal support for treatment and rehabilitation of drug users reaches \$241.3 million for FY 1975. By contrast the 1967 figure was \$18 million. 342
- 1975 "Of 115 U.S. medical schools, fewer than five require course work in drug dependency and less than 20 offer an elective in alcoholism and, or drug abuse." 343
- May 8, 1976 The National Council on Alcoholism's "Operation Understanding" banquet in Washington, D.C. - Fifty prominent leaders from business, politics, religion, health, journalism, etc. identify themselves publicly as recovered alcoholics. 344
- 1976 Eight States, Alaska, California, Colorado, Maine, Minnesota, Ohio, Oregon, and South Dakota have laws approaching the decriminalization of marihuana for personal use. 345
- March 15, 1977 The Carter Administration asks Congress to decriminalize the possession of marihuana and says that it is carefully reexamining its position on penalties for possessing cocaine. 346

April 18, 1977

Attorney General Oscar Flores Sanchez announces that charges will be dropped and in the future not be pressed where drugs seized amount to "normal" personal use. This represents a major shift in the previously tough anti-drug laws of Mexico. ³⁴⁷

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A VERY SHORT HISTORY
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by
Adam Smith

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A VERY SHORT HISTORY OF SOME AMERICAN
DRUGS FAMILIAR TO EVERYBODY

Our attitude toward the word "drug" depends on whether we are talking about penicillin or heroin or something in-between. The unabridged three-volume Webster's says a drug is "a chemical substance administered to prevent or cure disease or enhance physical and mental welfare" or "a substance affecting the structure or function of the body." Webster's should have added "mind," but they probably thought that was part of the body. Some substances that aren't drugs, like placebos, affect "the structure or function of the body," but they work because we *think* they're drugs.

We are a drug-using society. We take, for example, twenty thousand tons of aspirin a day, almost one aspirin per person in the whole country. Aspirin is a familiar drug from a family called salicylates, specifically, acetylsalicylic acid. It lowers body temperature, alleviates some types of pain, and stimulates respiration.

Nicotine is a familiar and widely recognized drug, a stimulant to the central nervous system. It is addictive. The toxic effects of nicotine have been detailed at great length by the Surgeon General. Americans smoke 600 billion cigarettes a year.

Alcohol is also a widely recognized drug. In the United States 70 million users spend \$10 billion a year. Five million of the 70 million alcohol users are said to be addicts, that is, they have a physical dependence on the drug. Alcohol is unique, says the pharmacology textbook, because it is "the only potent pharmacological agent with which self-induced intoxication is socially acceptable." Alcohol is so much a part of everyday life we do not think of it, on the rocks or straight up, as a drug or a potent pharmacological agent.

Then there is the family of drugs called the xanthines. Americans take xanthines at the rate of 100 *billion* doses per year. Xanthines are alkaloids which stimulate portions of the cerebral cortex. They give you "a more rapid and clearer flow of thought, allay drowsiness....motor activity is increased. There is a keener appreciation of sensory stimuli, and reaction time to them is diminished." This description, again from the pharmacology textbook, is similar to descriptions of cocaine and amphetamine. Of course, the xanthine addict pays a price. He is, says Sir Clifford Allbutt, Regius Professor of Medicine at Cambridge, "subject to fits of agitation and depression; he loses color and has a haggard appearance. The appetite falls off; the heart suffers; it palpitates, or it intermits. As with other such agents, a renewed dose of the poison gives temporary relief, but at the cost of the misery."

Xanthines are generally taken orally through "aqueous extracts" of the plants that produce these alkaloids, either in seeds or leaves. In the United States the three most common methylated xanthines taken are called caffeine, theophylline, and theobromine. The seeds of *Coffea arabica* contain caffeine, the leaves of *Thea sinensis* contain caffeine and theophylline, and the seeds of *Theobroma cacao* contain caffeine and theobromine. In America the three are known as "coffee," "tea" and "cocoa," and they are consumed daily, at the rate of billions of pounds a year. They are generally drunk as hot drinks, but Americans also drink cold drinks containing caffeine from the nuts of the tree *Cola acuminata*. The original drinks ended in the word "cola," but now there are many "colas" which do not bear that name in the title. The early ads for Coca-Cola said it gave you a lift.

Coffee, tea, cocoa and cola drinks are all drugs. Caffeine is a central nervous system stimulant, theophylline less so, and theobromine hardly at all. All xanthines increase the production of urine. Xanthines act on smooth muscles--relaxing, for example, especially in the case of theophylline, bronchi that may have been constricted. Like the salicylates--aspirin--xanthines can cause stomach irritation. Caffeine can cause sleeplessness, and researchers have found that it causes chromosome breaks.

Maxwell House, meet the Regius Professor of Medicine. Is the stuff good to the last drop, or another dose of the poison? Is it a food, to be sold in supermarkets, or a stimulant to the central nervous system like the amphetamines? "The popularity of the xanthine beverages depends on their stimulant action, although most people are unaware of any stimulation," says the giant pharmacology text.

It is surprising to find substances we think of so cheerfully, perkin' in the pot, listed as drugs. That's the point. In our society, there are some drugs we think of as okay drugs, and other drugs make us gasp. A coffee drinker who drinks coffee all day and cannot function without it is just a heavy coffee drinker, but someone using a non-okay drug is a "drug user" or an "addict."

Consumer Reports asked: how did drugs with such potential hazard spread without arousing the legal repression and social condemnation aroused by other drugs? They were domesticated, it said. There was no illegal black market, the dosages were relatively small, and some people buffered the drug effect with cream and sugar.

The worst of what our society thinks of as "hard drugs" comes from the unripe capsule of the opium poppy. In the nineteenth-century United States, you could buy opiates at grocery stores and drugstores, and by mail. Godfrey's Cordial--a molasses,

sassafras and opium combination--was especially popular. Genteel Southern ladies in lace and ruffles, smelling of verbena and other sweet things, sounding like Scarlett O'Hara, were slugging down daily a combination of opium and alcohol called laudanum. The first surveys of narcotics showed that women outnumbered men three to one, because "the husbands drank alcohol at the saloon, and the wives took opium at home."

The point of this capsule history is not to warn people from the perilous xanthines. (I drink them all, *Coffea arabica* and *Thea sinensis*, sweetened, no cream, please, and *Theobroma cacao* on cold winter days, and *Cola acuminata* on warm summer ones, and I have to be paying attention to be aware of the stimulant action.)

Nor is it to diminish the danger of illegal narcotics. (Legal narcotics are part of legitimate medicine.) There is no comparison between legal, domesticated, mild, buffered drugs and illegal and undomesticated ones, but it is society that has produced the legalities and the domestication. Illegal narcotics, producing huge profits and employing the worst criminal elements, are merchandised to the least stable elements of society, producing tremendous social problems.

A Coke at snack time, a drink before dinner, a cup of coffee after dinner, a cigarette with the coffee--very relaxing. Four shots of drugs. Domesticated ones. It would be rather comic to have addicts sneaking down dark alleys for a shot of coffee, but nicotine is so strong that when currencies fail--Germany right after World War II, for example--cigarettes become currency.

In some Muslim countries, you can sit and smoke hashish all day at a cafe, but possession of alcohol will land you in jail; in the United States you can sit in a saloon ingesting alcohol all day, but possession of hashish will land you in jail.

The drug taken by the astronauts of inner space was, at that time, legal. It was also nonnarcotic and nonaddictive. It crops up in the story not only because it was used in the exploration of the mind, but because so many explorers in meditation, biofeedback, and other disciplines went through a stage with it.

Lysergic acid diethylamide was invented by the Swiss. Curious to think of the Swiss, the symbol of sobriety and industry, watchmaking and cuckoo clocks, as having invented LSD, Librium and Valium, psychedelics and tranquilizers, the turn-ons and the turn-offs, but then the Swiss have been in the drug business since Paracelsus of Basle, roughly a contemporary of Columbus.

HISTORY OF DRUG USE AND DRUG USERS IN THE UNITED STATES

by

Elaine Casey

American opinion has always included some opposition to the non-medical use of any drug, including alcohol and tobacco. From colonial times through the Civil War, abstentionist outcries against alcohol and tobacco sporadically provoked prohibitory legislation. One 18th century pamphleteer advised against the use of any drink "which is liable to steal away a man's senses and render him foolish, irascible, uncontrollable and dangerous." Similarly, one nineteenth century observer attributed delirium tremens, perverted sexuality, impotency, insanity and cancer to the smoking and chewing of tobacco.

Despite such warnings, alcohol and tobacco use took deep root in American society. De Tocqueville noted what hard drinkers the Americans were, and Dickens was compelled to report that "in all the public places of America, this filthy custom [tobacco chewing] is recognized." Nevertheless, the strain in our culture opposed to all non-medical drug use persisted (National Commission on Marihuana and Drug Abuse, 1972).

INTRODUCTION

All manner of substances have been used by Americans throughout our history. Colonial residents and their predecessors relied on derivatives of natural substances to cure ailments, increase sexual potency, relieve pain--and to provide pure old fashioned pleasure.

Until the late 1800s, abstentionists and prohibitionists had a relatively easy task in identifying their targets for attack: Tobacco users were conspicuous in their enjoyment. Alcoholic beverage drinkers could be found in every saloon, and alcohol was served openly in homes and at social gatherings. Even opium dens of the west coast were well known, and opium could be purchased readily, free from state or federal government controls.

Early prohibitionists may be the envy of the "anti-drug" movements of the twentieth century. Until the Controlled Substances Act was passed by Congress in 1970, anti-substance legislation was hard put to keep pace with (or even to categorize) the endless variety of natural substances and preparations, multi-substance compounds, synthetic derivatives and "improvements" upon the natural that were adopted by different subcultures in the search for a new high or an intensified religious experience.

Physician-prescribed medications, once used for legitimate treatment, came into use as alternatives to "illicit" substances. Children inhaled glue and aerosols. Students, housewives, and truck drivers found a new way of life through consumption of prescribed and black-market sedatives and amphetamines. Even LSD was no longer just "acid." LSD-25 was joined by DMT, psilocybin mushrooms, nutmeg, morning glory seeds, peyote, mescaline, animal tranquilizers (PCP), and sundry combination capsules and tablets, as descendants of the Haight-Ashbury counterculture looked for new hallucinogens not yet outlawed by state and federal legislatures.

In short, the variety of twentieth century substances with potential for abuse confounded every abolitionist/prohibitionist effort. And the crazy-quilt patterns of new legislation reflected that confusion.

The resourcefulness of those determined to get high was remarkable. When one hallucinogen was outlawed, another took its place. With law enforcement agencies concentrating on *dealers* of marihuana and hashish, and putting more energy into locating users and sources of *heroin*, the "weekend" alcohol drinker soon had an opportunity to try smoking marihuana, found

that he liked it, and often substituted it for alcohol at social occasions. Younger Americans came to have increasingly easier access to "black market" marihuana, cocaine, prescription drugs, and animal tranquilizers.

EARLY SUBSTANCE HABITS

For Americans, the past 15-year period is not the first experience with a resourceful multi-drug culture.

Our European forebears, fifteenth, sixteenth, and seventeenth century explorers, traders, and conquerors, were open to the pleasures and products of the new worlds.

The European explorers from Columbus on found other [in addition to alcohol] mind-affecting drugs, and brought them with them. Tobacco was discovered on Columbus' first voyage. Cocaine was found in large areas of South America. Caffeine and LSD-like drugs were found scattered all over the world...the Europeans not only adopted nicotine and caffeine but spread them everywhere. They also imported opium. In a remarkably short space of time, western Europe was converted from an alcohol-only culture to a multi-drug culture (Brecher, 1972).

Tobacco was first introduced to Europeans by American Indians. Sailors tried and adopted the practice, both smoking the leaf and chewing it, and brought tobacco home to England. But where a habit could be found, a prohibitionist was not far behind.

In 1575, the Catholic Church in Mexico passed a regulation forbidding smoking in church. In 1642 and 1650, Papal edicts against the use of tobacco were issued. The European states, Constantinople, Japan, and Russia all had anti-tobacco laws, but the practice continued against all opposition. Russia's Czar Michael Feodorovitch, first of the Romanoffs, in 1634 pronounced a penalty that tends toward overkill: "Offenders are usually sentenced to slitting of the nostrils, the bastinado, or the knout," a visitor to Moscow reported. However, the visitor noted, tobacco was a premium commodity in Moscow, and smokers would pay any price for the precious leaf (Brecher, 1972).

Among other new habits the early explorers introduced to European culture were the many ways to enjoy caffeine: coffee from Arabia and Turkey; tea from China; the West African Kola

nut, later used as a source of caffeine in cola drinks in nineteenth and twentieth century United States; drinks from the bean of Mexico's cocoa tree; Brazil's ilex plant, from which mate is brewed; and cassina, early used in a caffeine beverage by Indians living in the (now) Virginia to Florida region, and as far west along the Gulf coast as the Rio Grande.

European settlers in America soon adopted the cassina plant to their own uses, preparing a tea they called "Black Drink," "Black Drought," or "dahoon," and later letting the leaves ferment to produce a brew containing both caffeine and alcohol (Brecher, 1972).

Spanish conquerors of Mexico found peyote in ritual use by the Incas, who also had the habit of chewing leaves from the Erythroxylon coca plant. The practice of coca leaf use was encouraged by Spanish rulers as a means of controlling the Indian natives; but the Europeans had strong doubts about the habit, and refrained from using it themselves. They did, however, try to curtail use of peyote and other indigenous herbal hallucinogens by the Aztecs, who had kept substance use as part of their religious practices since pre-Columbian times. Indian tribal use of peyote continued in spite of Spanish opposition, and the practice is still found in some areas today.

Cannabis sativa, too, was available in the early days of the new world. This plant was not indigenous to the Americas, but brought to the area by the Spaniards, with cannabis first appearing in Chile, where the Spanish introduced it in 1545 (Brecher, 1972).

The plant became a staple crop for colonial farmers, who reportedly grew it for its fiber. Along with tobacco, hemp became a major export crop for pre-Revolutionary American farmers.

The Jamestown settlers [brought] the plant [cannabis] to Virginia in 1611 and cultivated it for its fiber. Marihuana was introduced into New England in 1629. From then until after the Civil War, the marihuana plant was a major crop in North America, and played an important role in both colonial and national economic policy...George Washington was growing hemp [in 1765] at Mount Vernon...presumably for its fiber, though it has been argued that Washington was also concerned to increase the medicinal or intoxicating potency of his marihuana plants (Brecher, 1972).

In 1775, hemp culture was introduced into Kentucky and large hemp plantations flourished in Mississippi, Georgia, California, South Carolina, and Nebraska until well into the 1800s.

For the majority, however, alcohol and tobacco were the popular American substances of habit until the Civil War era.

For the minor "caffeine vice," residents in Confederate states returned to beverages made from cassina. Civil War blockades on southern ports curtailed imports of tea and coffee, so cassina drinks, abandoned since the "Black Drought" days of early settlers, became popular for the duration of the war.*

OPIATES: THE NEW NINETEENTH CENTURY HABIT

One of the first "exotic," non-indigenous substances to become a part of the nineteenth century culture was opium. Immigrant Chinese laborers building the trans-continental railroad migrated across the United States, bringing their opium-smoking habit with them to the west. In the early to mid-1800s, the practice was open and opium and its preparations were easily obtainable, subject to no controls or regulations.

Also, the use of opium became fashionable among some of the *litterati* in Europe, and their various letters and books extolled its virtues. Thomas DeQuincey's *Confessions of an Opium Eater*, published in 1822, received wide notice, giving heretofore naive readers some second-hand taste of the pleasures of the drug.

...I do not readily believe that any man, having once tasted the divine luxuries of opium, will afterwards descend to the gross and mortal enjoyments of alcohol. I take it for granted

"That those eat now who never ate before,
and those who always ate now eat the more."

...What I contemplated in these Confessions was to emblazon the power of opium--not over bodily disease and pain, but over the grander and more shadowy world of dreams.

*Similarly, when coffee prices rose substantially during and after World War I, Congress and the United States Department of Agriculture persuaded Americans to adopt temporarily cassina teas and soft drinks as a substitute caffeine source.

...A man who is inebriated, or tending to inebriation, is, and feels that he is, in a condition which calls up into supremacy the merely human, too often the brutal part of his nature; but the opium-eater...feels that the diviner part of his nature is paramount--that is, the moral affections are in a state of cloudless serenity, and high over all the great light of majestic intellect (DeQuincey, 1822).

But DeQuincey's subsequent *Niseries of Opium*, detailing his own agonies of addiction, was generally ignored, as were the scattered medical warnings against habitual use of the substance.

Opium and Medical Practices

Use of opium was predominantly medicinal at this time, although in 1832 a physician wrote this summary of the drug's effects:

"There is scarcely a disease in which opium may not, during some of its states, be brought to bear by the judicious physician with advantage." [But he cautioned against its indiscriminate use when other drugs are available:] "when it is thus used, it seldom fails to lay the foundation for a long train of morbid symptoms, which sooner or later terminate in all wretchedness, which disease is capable of inflicting. Yet, this drug is in use every day, particularly among the better circles of society, and the softer sex" (Levine, 1974).

There was at this time a vigorous patent medicine industry growing in the United States, with widespread advertising of preparations containing large quantities of opium. These "medicines" claimed to cure just about anything from "nerves" to marital problems, but what they amounted to were a source of opium, uncut and available to anyone with the nominal price of a bottle of the elixir.

Morphine: The Universal Cure

Morphine was first separated from opium by European chemists in the early 1800s, and was found soon after in the United States, where it began to take the place of opium in patent medicines.

Physicians believed the new opium derivative to be non-addicting, and hoped that it could actually cure opium addiction in

patients. Doctors prescribed the new opiate often. Prevalent medical opinion held that the addiction process occurred in the individual's stomach, and that ingestion of an opiate was responsible for addiction. The hypodermic needle and syringe were introduced in 1850--greeted as a boon by physicians who hoped to use morphine injections to kill pain and believed that the injection process itself would eliminate the addiction problem (Levine, 1974).

Morphine was used commonly as a pain killer during the Civil War. So large a number of soldiers became addicted as a result of the opiate given them for battle injuries that the post-war morphine addiction prevalent among veterans came to be known as "Soldier's Disease."

Late in the 1800s, morphine was prescribed commonly as a substitute for "alcohol addiction"; the practice continued until late in the 1930s. Dr. J. R. Black, in a paper entitled "Advantages of Substituting the Morphia Habit for the Incurably Alcoholic," published in the *Cincinnati Lancet-Clinic* in 1889, had the following praise for morphine in the alcoholic treatment regimen:

[Morphine] "is less inimical to healthy life than alcohol...[It] calms in place of exciting the baser passions, and hence is less productive of acts of violence and crime; in short...the use of morphine in place of alcohol is but a choice of evils, and by far the lesser...On the score of economy the morphine habit is by far the better. The regular whisky drinker can be made content in his craving for stimulation, at least for quite a long time, on two or three grains of morphine a day, divided into appropriate portions, and given at regular intervals. If purchased by the drachm at fifty cents this will last him twenty days" (Brecher, 1972).

Women: The Opiate Addicts

Throughout the late 1800s, the opiates (morphine and opium) continued to be distributed widely in patent medicines. There was also a widespread physicians' practice of prescribing opiates for menstrual and menopausal disorders. Too, there was extravagant advertising of the opiate patent medicines as able to relieve "female troubles."

Women, it seemed, had become the prevalent class of opiate users. Prescription and patent medicines containing the substances were advertised and accepted without question. Also, this was a convenient, genteel drug for a dependent lady who would never be seen drinking in public. "The extent to which alcohol-drinking by women was frowned upon may also [in addition to opiate medicines] have contributed to the excess of women among opiate users. Husbands drank alcohol in the saloon; wives took opium at home" (Brecher, 1972).

EARLY COCAINE USE

Medical practice also helped contribute to a new class of cocaine users. In 1844, the alkaloid cocaine was first isolated in pure form from coca leaves. However, this discovery received little attention until 1883, when Dr. Theodor Aschenbrandt, a German army physician, issued a supply of pure cocaine to Bavarian soldiers during maneuvers. Dr. Aschenbrandt later reported positive results, including beneficial effects on the soldiers' ability to endure fatigue during battle-like conditions (Brecher, 1972).

An Addicted Physician

At about the same time in the United States, Dr. William Halsted (1852-1922), prominent surgeon and later one of the founders of the Johns Hopkins School of Medicine, discovered that cocaine injected near a nerve produces a local anesthesia in the area served by that nerve. The discoverer of the first local anesthetic continued to experiment with cocaine, and soon found himself dependent on cocaine use. His subsequent efforts to rid himself of the dependence led Dr. Halsted to "cure" his cocaine habit by switching to morphine injections. At one time, his habit was reported to be a quantity of 180 milligrams daily. Eventually, he reduced this to a maintenance dose of 90 milligrams, which continued for most of his life (Brecher, 1972).

Freud and Cocaine

In 1884, Sigmund Freud is reported to have experimented on himself with 50 milligrams of cocaine. He prescribed cocaine to relieve the pain of a chronically ill friend who was at that time addicted to morphine, and wrote glowing reports of the

drug's success, even to the point of sending cocaine to his fiancée to "make her more lively". In the July, 1884, issue of the medical journal *Centralblatt für die gesammte Therapie*, Freud published an essay praising cocaine as a "magical drug," and continued to use it periodically to relieve depression in himself (Brecher, 1972).

In 1885, a German named Erlenmeyer published the first attacks on cocaine as a possibly addicting drug, and two years later Freud himself discontinued use and prescription of the drug, partially due to cocaine's harmful effects on the friend for whom he had originally prescribed it for pain (Brecher, 1972).

Coca-Cola

In 1885, John Styth Pemberton of Atlanta, Georgia, who had manufactured previously such patent medicines as Triplex Liver Pills and Globe of Flower Cough Syrup, introduced "French Wine Coca--Ideal Nerve and Tonic Stimulant." The product relied heavily on extract of coca leaves. The next year, Pemberton introduced a syrup called "Coca-Cola."

The "Cola" in the name indicated the presence of an extract of the kola nut--an African product that contains about two percent caffeine. That year, Pemberton is said to have sold 25 gallons of the syrup. At various times it was advertised as "a remarkable therapeutic agent" and as a "sovereign remedy" for a long list of ailments, including melancholy and (curiously) insomnia (Brecher, 1972).

(In 1906 a federal pure food and drug law was enacted, and Pemberton's successors, who were still making Coca-Cola, switched from using unadulterated coca leaves to decocainized leaves. The product still included caffeine, as it does today.)

MARIHUANA AND HASHISH

During the mid-1800s, *cannabis sativa*, whose use dates back to the second millennium B.C. in China, was considered a legitimate (and wholly licit) medication.

From 1850 until 1942, the *United States Pharmacopeia*, which lists most widely-accepted drugs, recognized marihuana as a legitimate medicine, under the name "Extractum Cannabis." Too, the *United States Dispensary* in 1851 reported the use

of hemp extract:

"The complaints in which it has been specially recommended are neuralgia, gout, rheumatism, tetanus, hydrophobia, epidemic cholera, convulsions, chorea, hemorrhage" (Brecher, 1972).

Limited non-medical use of cannabis, however, was reported in an 1869 issue of the *Scientific American*:

"The drug hashish, the cannabis indica of the U.S. *Pharmacopeia*, the resinous product of hemp, grown in the East Indies and other parts of Asia, is used in those countries to a large extent for its intoxicating properties and is doubtless used in this country for the same purpose to a limited extent" (Brecher, 1972).

Non-Medical Cannabis Use

Use of cannabis products for recreation grew gradually. The December 2, 1876, issue of the *Illustrated Police News* featured a drawing of five exotically-attired young ladies supposedly indulging their "hasheesh" habit in a room where hookahs were conspicuous. The *News* captioned the drawing: "'Secret Dissipation of New York Belles: Interior of a Hasheesh Hell on Fifth Avenue'" (Brecher, 1972).

Popular magazines and newspapers began to feature stories about the newly-discovered hashish users and their lurid habitats. The November, 1883, issue of *Harper's New Monthly Magazine* featured an article by an anonymous explorer of the "hasheesh dens":

"There is a large community of hashish smokers in this city [New York], who are daily forced to indulge their morbid appetites, and I can take you to a house up-town where hemp is used in every conceivable form, and where the lights, sounds, odors, and surroundings are all arranged so as to intensify and enhance the effects...

[The hashish smokers] are about evenly divided between Americans and foreigners; indeed, the place is kept by a Greek, who has invested a great deal of money in it. All the visitors, both male and female, are of the better classes, and absolute secrecy is the rule. The house has been opened about two years, I believe, and the number of regular habitues is daily on the increase...Smokers from different cities, Boston, Philadelphia, Chicago, and especially New Orleans, tell me that each city has

its hemp retreat, but none so elegant as this" (Brecher, 1972).

A number of physicians reported ingesting hashish during this era--some for "experimental" purposes, others admitting frank curiosity, and occasionally supplying fluid extract of cannabis to their friends. Hashish candy, too, was available in post-Civil War sweet shops. Dr. George Wheelock Grover, in his book *Shadows Lifted or Sunshine Restored in the Horizon of Human Lives: A Treatise on the Morphine, Opium, Cocaine, Chloral and Hashish Habits*, admitted purchasing a box of the candy in Baltimore. Determined to test the product on himself, Dr. Grover took "a full dose...(then the drug) manifested its peculiar witchery with scarcely prelude or warning" (Brecher, 1972). At the time, he was dining with several friends, and felt compelled to tell them of the peculiar sense of well being which had come over him:

"It is undoubtedly here a day of jubilation or of something in the way of celebration. You perceive that the tables are set with golden plate, that the waiters all seem to be dressed in velvet costumes, and that hundreds of canary birds are singing in gilded cages. It must be a celebration of a good deal of magnitude, as the many bands of martial and orchestral music seem all to be playing at once" (Brecher, 1972).

Cannabis, it seems, possessed considerably more useful properties than those first attributed to it in the early *Pharmacopeia* listing.

However, the contemporary prohibitionist movement was focusing its attention on the opium problem, and left cannabis products and their users to themselves for the next several decades.

EARLY ANTI-SUBSTANCE LEGISLATION

In 1872, California passed the first anti-opium law. This held that "the administration of laudanum, an opium preparation, or any other narcotic to any person with the intent thereby to facilitate the commission of a felony" now constituted a felony (Levine, 1974). However, this first awkward attempt failed to control unlawful use of opium in the state.

In 1881, the California legislature passed a law making it a misdemeanor to maintain a place where opium was sold, given away, or smoked. The bill applied only to commercial places, presumably the opium dens frequented by immigrant Chinese

laborers and their fellow habitues. Smoking opium alone, or with friends in a private residence, was not covered by the legislation. The practice continued.

In the same year, California became the first state to establish a separate bureau to enforce narcotic laws, and one of the first states to treat addicts. Connecticut, in 1874, became the first state to have a law whereby the "narcotic addict" was declared incompetent to attend to his personal affairs. The law required that he be committed to a state insane asylum for "medical care and treatment" until he was "cured" of his "addiction" (Levine, 1974).

The Opium Prohibitions

During the last quarter of the nineteenth century, the western states continued to pass legislation restricting use of opium. Nevada's 1877 law was the first actually to prohibit opium smoking; this made it illegal to sell or dispense opium without a physician's prescription, and prohibited the maintenance of any place used for smoking or otherwise "illegally using" opium. Other western states soon had similar laws, with most legislation directed at outlawing opium smoking, rather than curtailing use of other substances.

Controlling Opiate and Cocaine Distribution

In 1887, the Territory of Oregon passed the first comprehensive anti-substance law, providing: That licenses would be issued to physicians and pharmacists for sale of narcotics; that no person could sell, give away, or possess opium, "smoking opium," morphine, cocaine, or chloral hydrate, except by prescription of a licensed physician (Levine, 1974). Similar laws were adopted by other states, but with no uniformity as to which drugs were controlled, which controls were actually enforced, and the type of penalties to which offenders would be subject. In 1905, Connecticut passed a law whereby cocaine could be sold and possessed only with a physician's prescription; this remained in force until 1913, when the law was amended to include opium, morphine, and heroin.

In general, early laws restricted or prohibited possession of opium derivatives and cocaine without considering whether the substances could have significant medical use. Laws were concerned with the *manner* in which drugs were to be sold, not with setting standards for determining their legitimate use by physicians. In their limited knowledge, doctors continued

to prescribe opium derivatives for a variety of ailments. Many over-the-counter preparations containing quantities of morphine, heroin, and opium were still available to anyone complaining of an illness those opiates were believed able to cure.

Peyote

During the 1870s, American Indians had begun ritual use of peyote, as had the Aztecs before them. For the Comanches, Cheyennes, Arapahoes, and other tribes, the peyote cult was entirely religious, requiring total abstinence from alcohol--which, after being introduced to Indians by white settlers and soldiers, had become a substance of considerable abuse.

White land speculators, desiring Indian tribal lands, united with Christian missionaries in seeking to have peyote outlawed (Brecher, 1972). In 1899, Oklahoma became the first state to outlaw peyote. The legislation was repealed in 1908, following the pattern of it's legal/it's illicit again peyote laws enacted by legislatures in several western states. In 1929, New Mexico outlawed peyote, but the law was rarely enforced. As recently as 1959, that law was amended to permit ritual peyote use.

A major factor in maintaining the legal status of peyote has been the Native American Church of North America, an organization that claims some 250,000 Indian members from tribes throughout the United States and Canada. In addition to successfully opposing Congressional action against peyote and securing the repeal of state laws, the Native American Church has succeeded in several states in having such laws declared unconstitutional as a violation of freedom of religion (Brecher, 1972).

As ritual peyote use continued, mail-order companies were established to meet the demand, as with patent medicines.* In spite of erratic legislative attempts at control, an indigenous American herbal hallucinogen was gradually moving from tribal rituals into the culture at large.

*Dried mescal buttons could be purchased, legally, for as little as \$8.00 for 100 buttons, until as recently as the 1950s; and mail-order companies advertised freely in college newspapers and other publications during the late 1950s and early 1960s (Brecher, 1972).

Heroin: The Last Legal Opiate

Heroin, the newest opium derivative, was first produced commercially by Germany's Bayer Company in 1898. "It was widely advertised as being at least ten times as potent a painkiller as morphine with none of the addicting properties....One claim was made that the use of heroin could and would cure opium and morphine addiction" (Levine, 1974). General opinion held that heroin was the ultimate cure for morphine and opium addiction, and physicians made use of heroin in treating varied ailments.

It was not until 1925 that import of opium for the manufacture of heroin finally was banned in this country.

The 1900s: Summary

Throughout the nineteenth century, the United States continued as a multi-substance society. Frequent users of opium-derivative medications continued their habits. Cannabis smokers enjoyed their diversion with little harassment. And while other subcultures were finding other substances to use, opposition groups tried to keep pace.

THE FIRST FEDERAL LEGISLATION

While the medical community was prescribing heroin to cure fever and morphine/opium addiction alike, prohibitionists were finally succeeding in their battle against opium.

The federal Pure Food and Drug Act was passed in 1906. Irrespective of opposition by manufacturers of patent medicines, the Act required that medicines containing opiates, among other substances, must be so labeled. After the Act was passed, the manufacturers of Coca-Cola switched from using unprocessed coca leaves to decocainized leaves, but caffeine remained in the beverage.*

Subsequent amendments to the 1906 Pure Food and Drug Act required that the quantity of each drug contained be stated on medicine labels, and that drugs meet official standards of purity. Subsequent public service campaigns urging people not to use patent

*Currently, Maywood Chemical Company is the only United States firm licensed to import coca leaves; the majority of those are subjected to a decocainizing process before shipment to the Coca-Cola Bottling Company. Cocaine extracted by Maywood is sold to licensed chemical and pharmaceutical companies for manufacture of medical products.

medicines containing opiates "...no doubt helped curb the making of new addicts. Indeed, there is evidence of a modest decline in opiate addiction from the peak in the 1890s until 1914" (Brecher, 1972).

THE HARRISON NARCOTIC ACT

The federal Harrison Narcotic Act was passed in 1914.

Official title of the Harrison bill had been "An Act to provide for the registration of, with collectors of internal revenue, and to impose a special tax upon all persons who produce, import, manufacture, compound, deal in, dispense, sell, distribute, or give away *opium or coca leaves*,* their salts, derivatives or preparations, and for other purposes."

The law specifically provided that manufacturers, importers, pharmacists, and physicians prescribing narcotics should be licensed to do so, at a moderate fee. The patent-medicine manufacturers were exempted even from the licensing and tax provisions, provided that they limited themselves to "preparations and remedies which do not contain more than two grains of opium, or more than one-fourth of a grain of morphine, or more than one-eighth of a grain of heroin...in one avoirdupois ounce." Far from appearing to be a prohibition law, the Harrison Narcotic Act on its face was merely a law for the orderly marketing of opium, morphine, heroin, and other drugs--in small quantities on a physician's prescription. Indeed, the right of a physician to prescribe was spelled out in apparently unambiguous terms: "Nothing contained in this section shall apply...to the dispensing or distribution of any of the aforesaid drugs to a patient by a physician, dentist, or veterinary surgeon registered under this Act in the course of his professional practice only." Registered physicians were required only to keep records of drugs dispensed or prescribed. It is unlikely that a single legislator realized in 1914 that the law Congress was passing would later be deemed a prohibition law.

...After passage of the law, this clause ["in the course of his professional practice only"] was interpreted by law-enforcement officers to mean that a doctor could not prescribe opiates to an addict to maintain his addiction.

*Editor's italics.

Since addiction was not a disease, the argument went, an addict was not a patient, and opiates dispensed to or prescribed for him by a physician were therefore not being supplied "in the course of his professional practice." Thus a law apparently intended to ensure the orderly marketing of narcotics was converted into a law prohibiting the supplying of narcotics to addicts, *even on a physician's prescription.*

Many physicians were arrested under this interpretation, and some were convicted and imprisoned. Even those who escaped conviction had their careers ruined by the publicity. The medical profession quickly learned that to supply opiates to addicts was to court disaster (Brecher, 1972).

For all purposes, opium and cocaine could no longer be gotten legally, in quantity, by the user on the street. As licit sources became more controlled, new illicit channels opened to supply users. Use of "narcotics" (the true opium derivatives, and also cocaine, mistakenly labeled a narcotic by Congress in the 1914 act) continued at relatively the same level as prior to the Act's passage.

By fixing severe limits on the amount of opiate a patent medicine could contain, and by otherwise prohibiting the traffic in opiates except for medicinal purposes, the [Harrison Act] abolished the legitimate traffic. When the Supreme court ruled in the early 1920s that prescriptions for addictions were not legitimately medical practice, the interpretation meant simply that addiction thereby became a federal crime... The court thus lowered narcotics use into the underworld, forcing addicts to migrate to the urban centers of illicit supply. It also forced formerly decent and responsible citizens who had acquired an unfortunate habit to become aggressive and violent criminals. It made addicts conform to the image of nonscience; as they robbed or cheated or prostituted themselves to support the illicit price, they did indeed become debauched, corrupt, and depraved. In 1923, as many as 75 percent of the women in federal penitentiaries were Harrison Act prisoners (Clark, 1976).

In 1918, just three years after the Harrison Act went into effect, a study by a Congressional committee (which members included Dr. A. G. Du Mez, Secretary of the United States Public Health Service) released these findings:

- Opium and other narcotic drugs [including cocaine]... were being used by about a million people.

- The "underground" traffic in narcotic drugs was about equal to the legitimate medical traffic.
- The "dope peddlers" appeared to have established a national organization, smuggling the drugs in through sea-ports or across the Canadian or Mexican borders...
- The wrongful use of narcotic drugs had increased since passage of the Harrison Act. Twenty cities, including New York and San Francisco, had reported such increases (Brecher, 1972).

As a result of those findings, Congress responded with measures to strengthen the Harrison Act. In 1924, a law was enacted prohibiting importation of heroin *for any purpose*, including medical use. Still, the nation was finding that ridding itself of heroin would require considerably more than legislation.

"The 1924 ban on heroin did not deter the conversion of morphine addicts to heroin. On the contrary, heroin ousted morphine almost completely from the black market *after the law was passed*" (Brecher, 1972).

PROHIBITION(S) IN THE EARLY TWENTIETH CENTURY

The opiates and cocaine were not the only targets of the early twentieth century prohibitionists. Alcohol and tobacco, traditionally respectable American habits, were beginning to feel the abolitionists' attacks.

Tobacco

Until the first decade of the twentieth century, tobacco use was usually confined to smoking in pipes and cigars, chewing, and inhaling snuff. Cigarettes as we know them today began to appear in the late nineteenth century, gaining wide popularity some twenty years later. The new cigarettes were made of a mild, Virginia tobacco; they were smaller, paper-wrapped, and generally more attractive to more people, especially women. People tried them, liked them, adopted the habit. This new fondness, aided by public outcries against the foul cuspidor, helped confirm Americans in the tobacco-smoking habit.

The explosive increase in cigarette smoking after 1910 can...be attributed in part to the public-health campaigns of that era against the *chewing* of tobacco and

its inevitable accompaniment, the cuspidor. The sputum of tobacco chewers, according to repeated public-health warnings, spreads tuberculosis and perhaps other diseases. Most of those who gave up tobacco chewing no doubt turned instead to cigarette smoking. The ashtray replaced the cuspidor, and lung cancer replaced tuberculosis as the major lung disease (Brecher, 1972).

Anti-cigarette leagues flourished. Patterning their efforts on the anti-saloon leagues then lobbying throughout the country, tobacco prohibitionists had some measure of success. By 1921, the year after alcohol prohibition, 14 states had laws prohibiting cigarettes, and 92 anti-cigarette bills were under consideration in 28 more state legislatures (Brecher, 1972). But people continued to smoke, and the last statewide cigarette prohibition law was repealed in 1927. Only laws concerned with cigarette sales to minors were retained.

Not only did most states prohibit sale of cigarettes to minors, they also set penalties sometimes so severe as to make the whole tobacco prohibition approach a source of ridicule for the decades of the future.

A Florida law made it illegal for anyone under the age of twenty-one to smoke cigarettes. It was also illegal in Florida to provide anyone under 21 with a cigarette, a cigarette wrapper, or a substitute; a twenty-year-old caught in possession of a cigarette could be hauled into court and compelled to testify concerning its source...

In Maine an *offer* to sell cigarettes to a minor was punishable...In Massachusetts snuff and cigars were forbidden to young people under sixteen; the ban against cigarettes continued until eighteen...In Pennsylvania, a minor who refused to divulge the source of cigarettes or cigarette paper could be fined, imprisoned, or certified to the juvenile court; refusal to serve as an informer against his cigarette supplier also made a child a criminal in South Carolina.

These laws led, of course, to ridicule and contempt on the part of law-defying young people (Brecher, 1972).

Alcohol

The second decade of the twentieth century marked the culmination of alcohol prohibitionist efforts. During the previous two

centuries, abstentionists had been gathering supporters, and by 1900, they were a force to be reckoned with. The Women's Christian Temperance Union, anti-saloon leagues, and allied anti-alcohol crusaders convinced America that her downfall lay in continued use of alcohol.

The Eighteenth or "Prohibition" Amendment passed both houses of Congress in December 1917, and was ratified by three-fourths of the 48 state legislatures 13 months later. From 1920 until 1933, the manufacture, sale, and consumption of alcohol was prohibited in the United States.

As with tobacco, the opiates, and cocaine, legislation failed to create a general climate of abstention. And where there was a populace of willing consumers, supply was still able to keep pace with demand.

Alcohol remained available during Prohibition. People still got drunk, still became alcoholics, still suffered *delirium tremens*. Drunken drivers remained a frequent menace on the highways... The courts, jails, hospitals, and mental hospitals were still filled with drunks...

Instead of consuming alcoholic beverages manufactured under the safeguards of state and federal standards... people now drank "rotgut," some of it adulterated, some of it contaminated. The use of methyl alcohol, a poison, because ethyl alcohol was unavailable or too costly, led to blindness and death; "ginger jake," an adulterant found in bootleg beverages, produced paralysis and death. The disreputable saloon was replaced by the even less savory speakeasy. There was a shift from relatively mild light wines and beers to hard liquors--less bulky and therefore less hazardous to manufacture, transport, and sell on the black market. Young people--and especially respectable young women, who rarely got drunk in public before 1920--now staggered out of speakeasies and reeled down the streets. There were legal closing hours for saloons; the speakeasies stayed open night and day. Organized crime syndicates took control of alcohol distribution, establishing power bases that (it is alleged) still survive. Marihuana, a drug previously little used in the United States, was first popularized during the period of alcohol Prohibition... and ether was also imbibed (Brecher, 1972).

In spite of vigorous federal efforts to enforce the Eighteenth Amendment, the alcohol prohibition concept proved unenforceable. Americans and their European forebears had been drinking for centuries and were not ready to stop. The Twentieth Amendment

repealing prohibition passed Congress in February 1933. It was ratified by the requisite number of states in less than ten months.

The Twenty-first Amendment returned to individual states the power to retain statewide alcohol prohibition, and made it a federal offense to ship alcoholic beverages into a dry state. But the states, too, had learned how impossible it was to keep citizens from drinking. One by one, each repealed its local anti-alcohol legislation, with Mississippi the last state to surrender--in 1966.

Prohibitionists had little difficulty in finding a new substance to oppose. America had returned alcohol to stores and taverns. So be it. If Americans chose to destroy their bodies and pickle their livers by consuming alcohol--let them. But a new evil had begun to gain popularity during the alcohol prohibition era, and the country had to be protected from this newest path to degradation.

Marihuana

During the years of alcohol prohibition, marihuana use had gained in popularity.

[In New York City] marihuana "tea pads" were established about 1920. They resembled opium dens or speakeasies except that prices were very low; a man could get high for a quarter on marihuana smoked in the pad, or for even less if he bought the marihuana at the door and took it away to smoke. Most of the marihuana, it was said, was harvested from supplies growing wild on Staten Island or in New Jersey and other nearby states; marihuana and hashish imported from North Africa were more potent and cost more. These tea pads were tolerated by the city, much as alcohol speakeasies were tolerated. By the 1930s there were said to be 500 of them in New York City alone (Brecher, 1972).

In 1926, two New Orleans newspapers, the *Item* and *Morning Tribune*, published a series of "exposes" of the marihuana menace. The papers reported that sailors from Cuba and the South American countries were importing large quantities of cannabis into New Orleans, and that marihuana smoking had become widespread, even among children "'The Waif's Home, at this time was reputedly full of children, both white and colored, who had been brought in under the influence of the drug. Marihuana cigarettes could be bought almost as readily as sandwiches'" Brecher, 1972.

In 1927, Louisiana passed a law providing for a \$500 fine or six months' imprisonment for sale or possession of marihuana. Numerous arrests and a subsequent curbing of imports resulted but, as with alcohol, use continued.

Resourceful Louisiana residents stopped buying retail and started growing their own.

"The first large growing crop in the city [New Orleans] was found in 1930 and its value estimated at \$35,000 to \$50,000... One 1936 about 1,200 pounds of bulk weed were seized along with considerable quantities of cigarettes. On one farm, 5 1/2 tons were destroyed and other farms yielded cultivated areas of about 10 acres ... One resident of the city was found growing 100 large plants in his backyard" (Brecher, 1972).

As with alcohol prohibition, the determination of users to continue use of a substance subverted the efforts of law enforcement officials to put a stop to the practice.

However, marihuana prohibitionists continued their campaign. In 1929, Colorado passed anti-marihuana legislation, likely aimed at curtailing the habits of Mexican laborers who, being imported to work in the state's beet sugar fields, brought cannabis supplies north with them (Brecher, 1972).

The federal government soon adopted an anti-marihuana posture.

On January 1, 1932, the Treasury Department's newly-formed Federal Bureau of Narcotics took over enforcement of federal anti-opiate and anti-cocaine laws. The fact that the Bureau had no actual legal jurisdiction over marihuana failed to deter Commissioner Harry J. Anslinger from lobbying to include cannabis in future federal legislation. Shortly after Commissioner Anslinger's appointment, the National Conference of Commissioners on Uniform Drug Laws submitted a draft of a "Uniform Anti-Narcotics Act" which the Conference suggested for adoption by individual state legislatures. In actuality, the text of the model law did not mention inclusion of a *ban* on marihuana, but did offer states an optional supplementary provision restricting traffic in "Indian hemp" (Brecher, 1972).

By 1937, the District of Columbia and 46 states had adopted some form of legislation against marihuana. In most of those states, "marihuana was subject to the same rigorous penalties applicable to morphine, heroin, and cocaine, and was often erroneously designated a narcotic" (Brecher, 1972).

Encouraged by the zeal of Anslinger and his colleagues, newspapers and magazines gave marihuana scare stories front page

coverage. One horror tale appearing in the July 1937 issue of *American Magazine* (and co-authored by Commissioner Anslinger and Courtney Ryley Cooper) described this atrocity:

"An entire family was murdered by a youthful [marihuana] addict in Florida. When officers arrived at the home they found the youth staggering about in a human slaughterhouse. With an ax he had killed his father, mother, two brothers, and a sister. He seemed to be in a daze...He had no recollection of having committed the multiple crime. The officers knew him ordinarily as a sane, rather quiet young man; now he was pitifully crazed. They sought the reason. The boy said he had been in the habit of smoking something with youthful friends called 'muggles,' a childish name for marihuana" (Brecher, 1972).

Commissioner Anslinger was not satisfied. Reacting in large part to his vigorous lobbying efforts, Treasury Department officials submitted to Congress a proposal which was eventually passed as the Marihuana Tax Act of 1937.

The Act did not actually ban marihuana but, like the Harrison Narcotic Act of 1914, did recognize the potential medical uses of the substance, while imposing a tax on those involved in distribution. Members of the medical community, including physicians, dentists, veterinarians, were required to pay a licensing fee of \$1.00 per year, which granted them the right to prescribe cannabis to patients. Druggists dispensing the substance would pay a \$15.00 annual licensing fee, with marihuana growers taxed at \$25.00 per year, and importers, manufacturers, and compounders required to pay \$50.00 annually to continue in business. Only nonmedical and untaxed sale or possession of the substance was made illicit.

At this time, the only patent medicine use for cannabis was in preparations of corn plasters or corn removers. In general, manufacturers elected not to register under the tax, and stopped including the substance in their formulae.

SCARE TACTICS AND TIGHTER LAWS

At the same time the Marihuana Tax Law was passed, Congress also approved a schedule of increased penalties for second, third, and subsequent offenses against existing "narcotic" laws. Penalties to previous offenders for selling, importing, or exporting narcotics were a maximum of 20 years in prison or \$10,000 in fines (Levine, 1974).

In 1939, the federal government again tightened restrictions via a vehicle seizure law, which provided for confiscation of any vehicles used to transport illicit drugs in violation of federal laws.

Marihuana

Narcotic prohibition was on the rise and cannabis was included with the opiates and cocaine in anti-substance legislation.

Since 1937, restrictive legislation on marihuana has increased in quantity and severity. Most state marihuana laws specified that marihuana penalties should be the same as heroin penalties. Thus, as heroin penalties were escalated through the decades, marihuana penalties rose automatically. Nineteen states, moreover, made no distinction between mere possession of one marihuana cigarette and the sale of large quantities of heroin. Under both federal law and the laws of many states...the giving or furnishing of a narcotic drug or of marihuana was included in the definition of "sale" (Brecher, 1972).

State legislatures did not take lightly the threat of multiple ax murders by crazed marihuana smokers. Evils of the opiates had been publicized widely. Physicians and laymen alike warned the public of the curse of "addiction." Marihuana was less well known than the opiates, but that didn't mean it was less deadly. The states were taking no chances.

As recently as 1970, these state penalties were in force:

- In Georgia, sale of marihuana to a minor was punishable by life imprisonment, even if it was a first offense... A second such offense was punishable by death...
- In Illinois, the penalty for a first-sale offense was not less than ten years and as much as life. A mandatory life sentence was in effect for a second-sale offense. These penalties remained in effect after a 1968 amendment to the law reduced the penalties for possession of small amounts.
- In Louisiana, anyone over twenty-one years of age possessing marihuana was subject to a mandatory minimum sentence of five years at hard labor for a first offense...An adult selling marihuana to another adult was subject to a minimum

mandatory sentence of ten years at hard labor and a maximum sentence of thirty years at hard labor and could draw a death sentence. No suspended sentence or probation was permitted for any sale offenses or for second-possession offenses.

- In Massachusetts, it was a felony punishable by not more than five years in prison to be in a place where marihuana was kept or deposited, or to be in the company of anyone known to be in illegal possession of marihuana.
- In Missouri, the judge could hand down a life sentence for a second-possession offense or a first-sale offense ... If the buyer were a minor, a death sentence was possible for a first-sale offense...
- In Utah a life sentence was possible for a first marihuana sale offense or for a second possession-with-intent-to-sell offense (Brecher, 1972).

The federal government, too, was determined to protect citizens from recreational use of the hemp plant.

In 1951, fixed mandatory minimum sentences were established for all marihuana (now classified with the "narcotics") offenses. In 1956, mandatory federal penalty minimums were raised: At least two years for first-term possession; five years for second-offense possession (with no parole, probation, suspended sentence possible); five years, minimum, for first offense sale; and ten years for second sale offense. Under this law, penalties were identical with respect to marihuana and opiates.

Controlling the Opiates

The 1956 Narcotic Control Act was not restricted to marihuana controls. It also augmented previous regulations regarding the opiates.

In 1942, a federal opium poppy control act had required a license for anyone growing opium poppies within the United States, and a 1944 synthetic opiates law had included isonipecaine (Demerol®) under previous classifications and definitions of narcotic drugs.

In 1946, legislation controlling other synthetic drugs went into effect. This defined a new comprehensive class of drugs, the "opiates," which has since been expanded to deal with a number of synthetic substances, including methadone, under narcotic control laws. For purposes of this particular act, "opiates" were

defined as "any drugs found by the Secretary of the Treasury, after due notice and opportunity for public hearings, to have an addiction-forming or addiction-sustaining liability similar to morphine or cocaine."

In addition to the mandatory minimum marihuana/narcotic penalties discussed previously, the 1956 Narcotic Control Act also placed travel restrictions on "narcotic addicts." Anyone convicted of violating a state or federal law related to marihuana or narcotics, for which the penalty was more than one year's imprisonment, could neither leave from nor enter the United States unless he registered with U.S. Customs. The act also provided for surrender of all existing heroin to the federal government (actual import of opium for heroin manufacturing had been banned in 1924), irrespective of whether that heroin had been manufactured prior to 1924.

With the 1956 Narcotic Control Act in force, prohibitionists should have been able to rest. But again Americans were finding new drugs to use and to domesticate. While the abolitionists had been warring against opium derivatives, alcohol, marihuana, and synthetic opiates, other members of the culture were adopting new, licit substances to take the place of those that were being made illicit.

BARBITURATES AND AMPHETAMINES

Gradually, barbiturates and amphetamines became a part of American life.

During the nineteenth century, opiates had been used frequently for their sedative benefits. However, these were soon found to be addictive and physicians often prescribed bromide salts as an alternative. Bromides, however, never gained great popularity, largely due to the risk of chronic bromide poisoning. Until the first years of the twentieth century, physicians continued to prescribe alcohol (against all threats from temperance unions) as the most common sedative (Brecher, 1972).

Barbiturates

In 1903, barbital, a derivative of barbituric acid, came into medical use as a tranquilizer and sedative. Trade name for the product was Veronal[®]. Nine years later, Luminal[®] (phenobarbital) came on the market. Apparently, a great many Americans had trouble sleeping. Demand for the new sedatives increased with alarming speed, and the laboratories were hard pressed to make supply meet demand.

More than 2,500 other barbiturates were subsequently synthesized, and some 50 of them were accepted for medical use--as sedatives, as sleeping pills, and for other purposes. Long-acting barbiturates were developed for daytime sedation; short-acting barbiturates followed for prompt sedation and for inducing sleep without delay... the end of the 1930s an estimated billion grains [of barbiturates] were being taken each year in the United States alone (Brecher, 1972).

As with substances before them, the barbiturates were subject to increasing non-medical "abuse." In 1942, a magazine called *Hygeia* (later re-named *Today's Health*), published by the American Medical Association, ran the first article warning against use of barbiturates except by people under a physician's care. That article, titled "1,250,000,000 Doses a Year," was followed by a 1945 *Hygeia* feature called "Waco Was a Barbiturate Hotspot." Collier's followed with its April, 1949, article, "Thrill Pills Can Ruin You."

The scare was on. Barbiturates, once represented as medically-safe sedative/tranquilizers, had become "thrill pills."

Sleeping pills had a new image. They were a new high, a new drunk--and the scare was on. Agents of the United States Food and Drug Administration worked to cut down available supplies of non-prescription barbiturates. States passed laws. Citizens were arrested. Headlines ensued. And a black market developed. Warnings and scare tactics had literally created the "thrill pill" reputation and the American public was firmly convinced it could become more than calm by taking barbiturates.

One medical result of the barbiturate panic was a trend toward prescribing non-barbiturate sedatives and sleeping pills (i.e., Doriden®, Placidyl®, Noludar®) in increasing quantities. Too, the "minor tranquilizers" came to be used with greater frequency. The first of these was meprobamate (marketed as Miltown®) and followed by chlordiazepoxide (Librium®) and diazepam (Valium®). The "minor tranquilizers," particularly, have since gained a reputation as substances of common use and physicians prescribe them for everything from pre-vacation jitters to post-auto accident muscle spasms.

Amphetamines

Amphetamines were first synthesized in 1887, but little use for them was found until 1927, when laboratory experiments discovered their usefulness in raising blood pressure and stimulating the

central nervous system. During the later part of the 1930s, amphetamines were used to treat both narcolepsy and, curiously, hyperactive children. During World War II, army physicians issued amphetamines to American, British, German, and Japanese armed forces for alleviation of battle fatigue (as cocaine had earlier been used for Bavarian soldiers). Following the war, physicians routinely prescribed amphetamines for depression.

During the Korean War era, the earliest intravenous use of amphetamines by United States servicemen was reported. Some soldiers stationed in Korea and Japan during the early 1950s had the habit of mixing heroin with amphetamine and injecting the combination (Brecher, 1972). (This was a variation of the traditional "speedball," which combined heroin and cocaine.) A number of returning service men brought the custom back to the United States. During the late 1950s, some San Francisco area physicians prescribed amphetamine injections as treatment for heroin addiction, often using Methedrine[®]. Availability increased.

As recently as 1960, it was reportedly common practice in the San Francisco area for injectable amphetamines to be sold without prescription, or via forged prescriptions. Such practices eventually became known, and the resultant scandals during 1962 and 1963 caused the bulk of injectable amphetamines to be withdrawn from pharmacy shelves. With injectable amphetamines available legally only to hospitals, the inevitable black market suppliers appeared. "Speed" went underground and illicit laboratories specializing in the amphetamine business were reported in the San Francisco area as early as 1962 (Brecher, 1972).

THE 1960s: HALLUCINOGENS

Amphetamines were not the only chemicals being channeled from the laboratory to the streets.

LSD-25

In 1938, Drs. Albert Hofmann and W. A. Stoll of Sandoz Laboratories in Basel, Switzerland, discovered the ergot derivative *d*-lysergic acid diethylamide. Since this was the twenty-fifth lysergic compound the scientists had discovered, they called the substance LSD-25. When initial testing on animals showed no interesting properties of the drug, the substance was put away for the next five years.

In 1943, Dr. Hofmann took the first acid trip.

On April 16, 1943, Dr. Albert Hofmann...was working in his lab at Sandoz... was working with the derivatives of ergot, a fungus that grows on grains. Sandoz had successfully marketed ergot derivative for use in obstetrics and in treating migraine headaches. Midway through Friday afternoon Hofmann decided to go home. He felt restless and dizzy. At home, "I lay down and immediately fell into a peculiar state similar to a drunkenness, characterized by an exaggerated imagination. With my eyes closed, fantastic pictures of extraordinary plasticity and intensive color seemed to surge towards me. After about two hours this condition disappeared."...

Hofmann went back to the lab the next week and took what he thought was a very small amount of his new chemical. He began taking notes: "mild dizziness... inability to concentrate...uncontrollable laughter." Because of the war there were no cars, so Hofmann got on his bicycle to ride the four miles home, probably the last time anybody has tried to ride a bicycle four miles on LSD. "My field vision swayed before me and was distorted like the reflections in an amusement park mirror. The faces of those around me appeared as grotesque, colored masks; marked motoric unrest." He also had "a clear recognition of my condition, in which state I shouted half insanelly or babbled incoherent words. Sounds were transposed into visual sensations so that from each tone or noise a comparable colored picture was evoked, changing in form and color kaleidoscopically." That was the second acid trip. Sandoz sent the new drug off to the University of Zurich, and Hofmann's associate, W. A. Stoll, wrote up the results of the testing. LSD was not toxic and was not addicting, but an extremely small dosage had profound results. Most drugs are measured in milligrams, or thousandths of a gram; LSD was measured in micrograms, or millionths of a gram. Five grains, an aspirin-sized tablet, could produce effects in 3,000 people.

The United States Army began to stockpile LSD. Therapists around the world began to use it with patients. It allowed, they said, repressed memories to come forth, and the material that came up could be better understood because it took the form of visual symbols. Yet, with all the imagery, the patient kept a state of awareness, and retained his insights after the experience. Originally, LSD was called a hallucinogen, that is, an agent that causes hallucination. But the LSD ingester

was not quite like, for example, an alcoholic with *delirium tremens*, who sees snakes and green elephants. The alcoholic thinks the snakes and green elephants are real; the LSD subject "does not ordinarily accept them as real. He remains aware that what he is experiencing is a drug-induced phenomenon." So LSD was not a hallucinogen. Dr. Humphrey Osmond, one of the first psychiatrists to use the drug, called it psychedelic, mind-manifesting or mind-expanding...and he hoped LSD would be an aid to curing schizophrenia in his Saskatchewan hospital (Smith, 1975).

Research

During the next two decades, LSD-25 was tested as a possible cure or treatment aide for a variety of medical conditions.

The Maryland Psychiatric Research Center, among other facilities, had success in using the drug for treating chronic alcoholics. The Cook County Hospital in Chicago and Sinai Hospital in Baltimore reported good results when using LSD to treat pain in terminal cancer patients (Smith, 1975). In 1950, Drs. Anthony K. Busch and Warren C. Johnson published the first report on the use of LSD in psychotherapy treatment. The doctors, after using the drug on 21 hospitalized psychotic patients, offered the conclusion that LSD-25 was a promising means of dealing with chronically-withdrawn patients, and that it might serve as a method for shortening the duration of psychotherapy treatment in general. In Poland, Dr. M. Rostafinski used the drug to treat a small group of epileptic patients. In the United States, Dr. Charles Savage reported a particular *lack* of success in using LSD to treat 15 patients suffering from depression. In 1954, a German physician named Federking proposed that LSD was more effective than mescaline in treating neurotic patients "refractory to psychotherapy" (Brecher, 1972).

International research continued.

Hallucinogens: One Author's Trip

In *The Doors of Perception* and *Heaven and Hell*, published in the early 1950s, Aldous Huxley described some of his experiences with hallucinogens. Following is his account of one day's diversion with mescaline.

Most takers of mescaline experience only the heavenly part of schizophrenia. The drug brings hell and

purgatory only to those who have had a recent case of jaundice, or who suffer from periodical depressions or a chronic anxiety...But the reasonably healthy person knows in advance that...mescaline is completely innocuous, that its effects will pass off after eight or ten hours, leaving no hangover and consequently no craving for a renewal of the dose...

We walked out into the street. A large pale blue automobile was standing at the curb. At the sight of it, I was suddenly overcome by enormous merriment. What complacency, what an absurd self-satisfaction beamed from those bulging surfaces of glossiest enamel! Man had created the thing in his own image--or rather in the image of his favorite character in fiction. I laughed till the tears ran down my cheeks.

We reentered the house. A meal had been prepared. Somebody, who was not yet identical with myself, fell to with ravenous appetite. From a considerable distance and without much interest, I looked on.

When the meal had been eaten, we got into the car and went for a drive. The effects of the mescaline were already on the decline: but the flowers in the gardens still trembled on the brink of being supernatural, the pepper trees and carobs along the side streets still manifestly belonged to some sacred grove...And then, abruptly, we were at an intersection, waiting to cross Sunset Boulevard. Before us the cars were rolling by in a steady stream--thousands of them, all bright and shiny like an advertiser's dream and each more ludicrous than the last. Once again I was convulsed with laughter...

The Red Sea of traffic parted...

An hour later...we were back at home, and I had returned to that reassuring but profoundly unsatisfactory state known as "being in one's right mind" (1954).

Legislation: Hallucinogens

Prior to 1962, almost all the LSD-25 and psilocybin available in the United States and Canada was produced by Switzerland's Sandoz Laboratories. The chemicals could be purchased, legally, by physicians, psychiatrists, psychologists, and other mental-health professionals who could certify legitimate use for the substances. The only major restriction was a United States Food and Drug

Administration label on each LSD container: "Caution: New drug--limited by federal law to investigational use."

During 1962 and the years immediately following, the Food and Drug Administration issued more stringent regulations pertaining to investigational new drugs (IND), including LSD-25. In consequence, many states passed legislation outlawing LSD and a new federal law further restricting use of investigational drugs, including LSD, went into effect. Sandoz virtually curtailed production of LSD-25. However, the formula for making LSD could be gotten from the U.S. Patent Office for fifty cents, and precursor chemicals were still relatively easy to acquire. Underground laboratories began production. Far from limiting seriously the availability of LSD, the new federal regulations only served to give the drug wider publicity. Both supply of and demand for "acid" were higher than ever before.

The Sixties took over, the psychedelics became a sub-cult, the partisans said it brought Utopia, the antagonists said it brought the plague; LSD became a terror symbol, which made it attractive to children who... knew that the Establishment and the law and their parents were all lying. "The anti-LSD publicity, the scare campaigns, and the laws," said *Consumer Reports*, "helped to convert what had been (for twenty years) a relatively unknown and innocuous drug into a quite damaging one."

...The laws were passed, the police were alerted, raids began, the generation gap widened, and the epidemic spread (Smith, 1975).

LSD and Society

Two men who helped spread the epidemic and widen the cultural gap were Drs. Timothy Leary and Richard Alpert, instructors at Harvard University's Center for Research in Human Personality.

During the summer of 1960, Leary had tried the Mexican psilocybin mushroom--and liked what he found. He and Alpert began experimental work with LSD and synthetic psilocybin--which, by the way, was first synthesized by Sandoz's Dr. Hofmann, some 15 years after his psychedelic bicycle ride.

In the fall of 1960, Leary and Alpert purchased some psilocybin from Sandoz for an experiment they planned with prisoners at the Massachusetts Correctional Institute in nearby Concord. Initial results were promising: Prisoners who had taken a psilocybin

trip prior to release from Concord were found less likely to be returned for parole violation than those who had not had an Alpert/Leary trip (Brecher, 1972).

Drs. Leary and Alpert continued to take recreational/experimental acid trips themselves. Being teachers by profession and generous men by nature, they spread the word of LSD to anyone who would listen: There was a revolution about to start. The mind would at last be freed from the bondage of proletarian concerns. "'You are never the same after you've had that one flash glimpse down the cellular time tunnel,' [Leary] said. 'Turn on'" (Smith, 1975).

Leary turned on. So did Alpert, their graduate students, and a conspicuous percentage of those living on the Harvard campus. In 1962, the FDA, Massachusetts law enforcement officials, and the Harvard board of trustees caught up with Leary. Harvard's *Crimson* warned students against using LSD. National media spread the alarm. While FDA and state officials were investigating Leary, the professor took advantage of this new celebrity stature to campaign nationally for LSD.

At the request of the university, Leary and Alpert left Harvard in spring 1963. But this was just the beginning for the two professors. Rather than sneaking off to find tenure at some small university in the midwest, they did what they could to become cult heroes.

It was their cult. Their acid. They had taken the first trips, the first risks. They were the first dropouts. They made the rules.

Leary and Alpert preached "set and setting." Everything in taking LSD, in having a fruitful-freakout-free LSD experience, depended on set and setting. You should take it in some serene and attractive setting, a house or apartment decorated with objects of the honest sort, Turkoman tapestries, Greek goatskin rugs, Cost Plus blue jugs, soft light--not Japanese paper globe light, however, but untassellated Chinese textile shades--in short, an Uptown Bohemian country retreat of the \$60,000-a-year sort, ideally...The "set" was the set of your mind. You should prepare for the experience by meditating upon the state of your being and deciding what you hope to discover and achieve on this voyage into the self. You should also have a guide who has taken LSD himself and is familiar with the various stages of the experience and whom you know and trust (Wolfe, 1968).

Their mystique grew. Followers arrived. Professors became gurus and America found itself possessed of a subculture that would change its music, life styles, attitudes toward marriage, beliefs

in salvation, conception of divinity, the content of its university courses and cookbooks, and the substances it used for recreation and enjoyment.

Post expulsion...[Alpert and Leary] landed in a fifty-five-room mansion in Millbrook, New York, owned by a Mellon Heir, Billy Hitchcock, with the local cops peering through the bushes. The local cops were led by G. Gordon Liddy, later known as a Watergate burglar...

...[Eventually] G. Gordon Liddy went to prison for burglarizing the Watergate...Leary went to prison for possessing a fingernail's worth of marihuana... and Richard Alpert went to India and became Baba Ram Dass, the very symbol of the seeker (Smith, 1975).

In retreating to Millbrook, Leary and Alpert had hoped to minimize their difficulties with the law. But, they still had to contend with opposition groups. Did they bring it on themselves by publicizing the pleasures of psychedelic-heightened consciousness? If LSD-25 had stayed in the laboratory and the parlors of a few university scholars, would it still be legal, available, and pure? Academic questions--and Alpert and Leary were no longer academicians. They were gurus and the substance of their cult, d-lysergic acid diethylamide, was the newest target of American prohibitionists.

LSD: Prohibition

In 1965, federal drug abuse control regulations were passed. Based on its power to regulate interstate commerce, Congress now regulated the sale and use of depressant, stimulant, and hallucinogenic drugs. The Drug Abuse Control Amendments required the registration of every person who engaged in the manufacture, preparation, compounding, wholesaling, jobbing, and distribution of depressants or stimulants. Penalties were provided for anyone who sold, gave away, or otherwise distributed any substance in violation of the law, but no stipulation was made regarding someone who possessed depressant or stimulant drugs for use by members of his own household.*

*1968 amendments to the legislation granted more strict penalties for any convicted of selling or distribution. For the first time, the 1968 amendments also provided for penalties (not more than one year in prison, a fine of not more than \$1,000, or both, for a first conviction) for anyone found guilty of illegally possessing a depressant or stimulant drug.

Not to be caught napping, most state legislatures responded to the early-to-mid 1960s attacks on LSD with prohibitive legislation of their own.

In 1965, New York state passed a law providing for a maximum of two years in prison for anyone convicted of possessing, selling, giving away, or otherwise distributing LSD or "LSD-like drugs." Subsequent panic by New York citizenry caused penalties to be increased to a maximum of 20 years in 1966. In 1966, California passed the Grunsky bill, which prohibited possession, sale, manufacture, or importation of LSD and dimethyltryptamine (DMT) into the state. One notable result of the California legislation was to raise the average price of an acid trip from \$3 to \$10 (Brecher, 1972). Publicity surrounding the legislation didn't hurt LSD's popularity, either.

Prior to 1962, the Food and Drug Administration had labeled LSD an "investigational new drug." By 1966, it was almost as well known as aspirin.

For twenty years, from 1943 to 1963, the dissolving boundaries and unleashed memories and flowing feelings produced by the interaction of Dr. Hofmann's chemicals and minds brought no talk of revolution. The subjects and the therapists both had short hair, and society paid them no attention...The Freudians found Freudian symbols. The Jungians found Jungian archetypes and the collective unconscious, the Rankians found separation anxiety, the Sullivanians found oral dynamism...

Then came: Free Speech, birth control pills, long hair, brotherly love, Flower Children, predators on the Flower Children, cops, narcotics, speed, laws, judges, politicians campaigning, busts, riots, Vietnam, war resisters, the Mafia, Richard Nixon, Woodstock. Confrontation.

Psychedelics were no longer experimental substances used by researchers to peel back the layers of the mind, they were a social issue--and a divisive one at that. LSD ADDICTS STARE AT SUN, the newspapers report; no point in detailing the hoax, newspapers print what they believe sells. Someone at the *Saturday Evening Post* must have known that picture was thalidomide babies, not "LSD babies," but they gave it the LSD caption; more proof that the Establishment lies, said the counter-culture. Were there some chromosome breaks in the lab experiments? Why was that front-page, said the counter-culture, when

the same breaks for caffeine and aspirin go unreported? Could it be because coffee and tea and aspirin are major advertisers? (Smith, 1975).

SUMMER, 1967

Came the summer of 1967. The students who heard Leary and Alpert's promises of universal love, freed consciousness, enlightenment, inner peace, general good times, and LSD all got together in San Francisco for the summer. The media loved it. They called it the Summer of Love, called the LSD takers Flower Children. Communal living, "free" love, gentle, stoned people passing out flowers in the parks. Marihuana, LSD, and brotherly love were there for the taking. Musicians, journalists, poets, cultural anthropologists, and earnest undergraduates came to Haight-Ashbury to study the phenomenon.

For a very short while, it was phenomenal. All the revelations that Alpert and Leary promised were there.

Right Now there are two ways it can go in Haight-Ashbury. One is the Buddhist direction, the Leary thing. There are good heads like Michael Bowen and Gary Goldhill who want to start the League for Spiritual Discovery here and pull the whole movement together into one church and give it a focus and even legal respectability. And they have given up much for this dream. Goldhill is a beautiful head! He is an Englishman who was writing this experimental stuff for TV in England and the BBC sent him to the U.S...and he took a vacation in Mexico and ran into some American heads in San Miguel de Allende who said, Man, you got to come back here when the rainy season start and take some magic mushrooms, and damned if they didn't send him a telegram in Guadalajara or wherever--RAINS CAME MUSHROOMS UP--and he returned out of curiosity and took the mushrooms, just as Leary had, and discovered the Management and gave up all, all the TV BBC game and dedicated himself to The Life...for, as Leary has said, a home should be a place of purity that the Gautama Buddha himself could walk into from 485 B.C. and feel at home. For some day grass must grow again in the streets, in pastoral purity, for life is shit, a duress of bad karmas, endless fight against catastrophe, which is to be warded off finally only by utter purification of the soul, utter passivity in which one becomes *nothing*...but a vessel of the *All*...the All-one...

...as against the Kesey direction, which has become the prevailing life style of Haight-Ashbury...*beyond catastrophe*...like, picking up on anything that works and moves, every hot wire, every tube, ray, volt, decibel, beam, floodlight and combustion of American flag-flying neon Day-Glo America and winding it up to some mystical extreme carrying to the western-most edge of experience-- (Wolfe, 1968).

Owsley (August Owsley Stanley III, sound man for the Grateful Dead rock group) was home-brewing the very finest LSD and everybody's trip was beautiful.

The Haight-Ashbury heads held the first big "be-in," the Love Festival on October 7, on the occasion of the California law against LSD going into effect. Thousands of heads piled in, in high costume, ringing bells, chanting, dancing ecstatically, blowing their minds one way and another and making their favorite satiric gesture to the cops, handing them flowers, burying the bastards in tender fruity petals of love... the thing was fantastic, a freaking mind-blower, thousands of high-loving heads out there messing up the minds of the cops and everybody else in a fiesta of love and euphoria (Wolfe, 1968).

Orange Sunshine, a combination of lysergic acid and ergotamine tartrate, was reportedly Owsley's best product. To the buyer on the street, just the word "Sunshine" was enough to ensure quality in LSD. Soon, due to federal restrictions and penalties, chemically-pure LSD-25 was no longer available. Owsley and his chemists kept trying to improve their product, but Sandoz they were not. Searching for the ultimate "acid," they mixed Orange Sunshine with strychnine, amphetamines, other chemicals. They called them Clear-Lite, Window Pane, Purple Pie, Yellow Smash, but with no FDA to control production, "acid" wasn't only LSD-25 any longer.

The flower children were uncritical consumers. They believed in trust, and they often trusted people who shouldn't have been. "Mescaline" was rarely pure--or even partially--mescaline. "Psilocybin" was sometimes the dried magic mushroom, sometimes its synthetic equivalent, sometimes canned grocery store mushrooms soaked in phencyclidine (PCP), an animal tranquilizer producing a chemical reaction close to alcohol intoxication. Amphetamines weren't pure. Most every substance was cut with strychnine or arsenic--or even rat poison or baby powder. Even the cannabis was often treated with something to make it "better" than nature intended.

When the children took the strychnine, or the arsenic, or the atrophine, or the Methedrine, or even LSD—sometimes there really was a college chemist just cooking for his friends—they sometimes had adverse reactions, whereupon their friends dumped them into the emergency room of a hospital, an environment that can produce a bad trip in people who are stone cold sober and just passing through (Smith, 1975).

LEGACY OF THE SUMMER

Before long the summer of love was corrupted. Police started raiding the children's homes and carting them off to jail on charges varying from illegal possession of drugs to cohabitation. Chemicals bought on the street were increasingly unreliable. "Speed freaks" and "junkies" moved in, bringing their amphetamines and heroin with them. The flower people moved to the country; the heroin and amphetamine users stayed.

Amphetamines

"Speed kills," the LSD users warned. Maybe it didn't often (technically) kill those who used it, but speed did help end the fragile climate of brotherhood (Haight-Ashbury) in the counter-culture.

As early as 1965, the underground press had tried to warn cannabis and LSD users away from amphetamines. Poet Allen Ginsberg said it best, in his December, 1965, interview in the *Los Angeles Free Press*:

"Let's issue a general declaration to all the underground community, *contra speedamos ex cathedra*. Speed is antisocial, paranoid making, it's a drag, bad for your body, bad for your mind, generally speaking, in the long run uncreative and it's a plague on the whole dope industry. All the nice gentle dope fiends are getting screwed up by the real horror monster Frankenstein speed freaks who are going around stealing and bad mouthing everybody" (Brecher, 1972).

The 1970 *Interim Report of Canada's (Le Dain) Commission of Inquiry into the Non-Medical Use of Drugs* analyzed the phenomenon of amphetamine use in the counter culture:

"Some 'speed' users who inject almost suicidal doses of methamphetamine into their veins without any regard for their safety and health, may actually be trying to test the truth of the youth slogan 'Speed Kills.' The role of the doomed person who is at once a martyr sacrificing himself, a hero braving the confrontation with certain destruction and a gambler playing dice with death, is a role which seems to have a strong seductive pull for some young people who are morbidly hungry for compassion, admiration and excitement. For these individuals the slogan 'Speed Kills,' may, paradoxically, carry more attractive than deterrent power--and thus may not serve the purpose for which it is being promoted" (Brecher, 1972).

The federal government increased efforts to curb increasing black market amphetamine traffic. Underground speed labs were busted, as illegal stills had been during alcohol prohibition. Speed became harder to come by. Legal stimulants were controlled closely. Prices went up. Black market merchants began importing increased amounts of cocaine to meet the stimulant demand.

HEROIN AND THE MIDDLE CLASS

The descendents of Haight-Ashbury turned increasingly to heroin. Use was no longer centered mainly in the non-white ghettos; the heroin habit was finding a place in the lives of children from white, middle income homes. In an article in the Spring, 1971, issue of the *Journal of Psychedelic Drugs*, three medical staff members of the Haight-Ashbury Medical Clinic traced the changing patterns of heroin use:

Within the last two years [1969 to 1971] there has evolved a new style of heroin addict consisting largely of alienated white youth suffering from disillusionment, disaffiliation, frustration, and despair...

1970 is becoming recognized as the "year of the middle class junkie," a reflection of the changing socioeconomic background of today's heroin extraction. They have begun using heroin (the perfect tranquilizer) only within the last few years and are now beginning to seek medical help in rapidly increasing numbers.

The "middle class junkie" is...composed of two rather distinct types: the "New Junkie" (who began using heroin after January, 1967) and the "Transition Junkie" (who began using heroin between January, 1964 and January, 1967). The TJ is characterized by a similar family and social background to the "New Junkie" and differs mainly in the effects of the social atmosphere of the drug subculture that existed when he came onto the scene. He passed through a period of optimism and hope, and reflects this in the drugs he used heavily prior to heroin (the psychedelics and amphetamines). He is a self-medicator and a drug experimenter; he has "tried all drugs."

The newer addict entered the drug subculture at a time of beginning frustration and despair, and therefore, engaged in less experimentation before "settling" on heroin. He is more aware of the dangers of the "street drugs" (having seen some of the effects on the Transition Junkie's contemporaries), and less of a self-treater than his Transition Junkie counterpart.

These two groups together [NJ and TJ] make up the "middle class junkies" and are distinguished from the older ghetto-bred addicts...by many factors other than background, family status, percentage of females, and race. They are also separated by therapeutic response, with the older addict being a more "faithful" patient and less likely...to get "clean" than his newer counterparts (Sheppard *et al.*, 1972).

The Haight-Ashbury Free Medical Clinic study on which the above report was based uses January, 1964, as the approximate time when heroin use began to spread from non-white ghetto areas into segments of America's white, middle class community. As Sheppard, Gay, and Smith stipulate in the article, the San Francisco area has proven to be a place where drug use trends begin some six to 18 months before they are evident in the rest of the country.

An Addicted Author: Heroin vs. Hallucinogens

When I speak of drug addiction I do not refer to keif, marijuana, or any preparation of hashish, mescaline, Bannisteria Caapi, LSD6, Sacred Mushrooms or other drug of the hallucinogen group...There is no evidence that the use of any hallucinogen results in physical dependence.

The action of these drugs is physiologically opposite to the action of junk. A lamentable confusion between the two classes of drugs has arisen owing to the zeal of the US and other narcotic departments...

...All the hallucinogen drugs are considered sacred by those who use them--there are peyote cults and Bannisteria cults, hashish cults and mushroom cults--"The Sacred Mushrooms of Mexico enable a man to see God"--but no one ever suggested that junk is sacred. There are no opium cults. Opium is profane...

Junk is the ideal product...the ultimate merchandise. No sales talk necessary. The client will crawl through a sewer and beg to buy...The junk merchant does not sell his product to the consumer, he sells the consumer to his product. He degrades and simplifies the client...

I awoke from The Sickness at the age of forty-five, calm and sane, and in reasonably good health except for a weakened liver and the look of borrowed flesh common to all who survive The Sickness...Most survivors do not remember the delirium in detail. I apparently took detailed notes on sickness and delirium. I have no precise memory of writing the notes which have now been published under the title *Naked Lunch*...

...I lived in one room in the native quarter of Tangier. I had not taken a bath in a year nor changed my clothes or removed them except to stick a needle every day in the fibrous grey wooden flesh of terminal addiction. I never cleaned or dusted the room. Empty ampule boxes and garbage piled to the ceiling. Light and water long since turned off for nonpayment. I did absolutely nothing. I could look at the end of my shoe for eight hours. I was only roused to action when the hourglass of junk ran out...And suddenly my habit began to jump and jump. Forty, sixty grains a day. And still it was not enough. And I could not pay (Burroughs, 1960).

Federal Response to Heroin Use

By 1966 it was apparent that heroin use by whites was increasing. That same year, the federal government passed the Narcotic Addiction Rehabilitation Act, which provided treatment and rehabilitation for both convicted and volunteer heroin addicts. The Act specified conditions for short-term, in-patient care in medical facilities, and for long-term, continued out-patient care in the community. The United States Surgeon General was mandated to assist states and municipalities in developing treatment programs and facilities for addicted "narcotic" users. As defined in the law, "treatment" was to include "confinement and treatment in an institution, and supervised after-care in the community... designed to protect the public and benefit the addict by correcting his anti-social tendencies and ending his dependence on addictive drugs and his susceptibility to addiction" (Levine, 1974).

In 1968 the Department of Justice's Bureau of Narcotics and Dangerous Drugs was created. The Bureau, charged with enforcing federal laws having the goal of suppressing illicit drug traffic, replaced the two agencies previously concerned with drug-related activities: the Treasury's Federal Bureau of Narcotics and HEW's Bureau of Drug Abuse Control.

Irrespective of federal control efforts, heroin use continued to increase. Young people had heard too many scare tactics and warnings they knew were false: "Marihuana is habit forming," "LSD causes insanity, leads to deformed babies." People were familiar with different drugs--had tried them, used them occasionally (or frequently), believed that government and medical indictments against the substances came from ignorance, fear, hostility toward the youth culture. Heroin was just another drug, something they could try, and could stop using whenever they became bored with it.

HEROIN: THE VIETNAM WAR

Vietnam brought many white young people who would otherwise never have seen an opium poppy into contact with heroin.

Young whites and blacks, just graduated from high school or university, were drafted and sent to fight a guerrilla war in a small Asian country they had never studied in geography class. Heroin, marihuana, amphetamines, and barbiturates were available. Since cannabis and opium poppies were common agricultural crops in southeastern Asia, marihuana and heroin were particularly inexpensive.

The combination of war, substance availability, boredom, the sense of futility in fighting a war nobody seemed to be winning, and a general scepticism about anti-heroin warnings from the government that "got us into this mess in the first place" all combined to turn a number of American soldiers on to heroin. Like their Korean War predecessors, many United States military men in Vietnam had some variety of heroin habit. Some brought the habit with them to Vietnam; others learned not long after they arrived.

The Military's Response

Military officials turned their heads, discharged some soldiers for use of marihuana, and ignored the heroin problem as long as they could.

Shortly after the United States began military support to South Vietnam, high incidence of drug abuse, particularly of marihuana and dangerous drugs such as the amphetamines and barbiturates occurred among the military stationed there. The Department of Defense appointed several Task Forces to inquire into...the problem...Early reports from one of the Task Forces stated that there was a relatively low rate of drug abuse in the services...The report concluded that there was virtually no drug addiction in the military...

In contrast...in 1969 the military conducted about 36,000 investigations of drug abuse and in 1970, about twice that many (Levine, 1974).

Addicted Soldiers

One survey by two army physicians conducted on GI's returning from Vietnam showed that more than 16 percent admitted using heroin during their final thirty days in Vietnam. But about 6 percent of those GI's interviewed admitted using heroin before going to Vietnam. A congressional Committee, in early 1971, found that a significant portion of the drug users were inducted into the services because of inadequate pre-induction screening.

During early 1971, as a result of an amnesty program, the Pentagon reported that nearly sixteen thousand servicemen voluntarily identified themselves as heroin users and sought treatment. The majority of those servicemen who sought treatment (14,736) were from the Army. The

remainder (977) included servicemen from the Navy, Marines, and Air Force. There is no estimate of how many servicemen qualified for treatment but did not identify themselves as heroin users.

...Whatever estimated figure one chooses to accept, there were anywhere from 25,000 to 50,000 American troops in Vietnam who were heroin users by mid-1971, and this estimate does not include addicted servicemen who had previously served in Vietnam and returned to civilian life. Perhaps the most alarming statistics show that the death toll from heroin overdose /rose/ in Vietnam despite the reduction in the number of men stationed there. In 1970, the *quarterly* average reported was 26 deaths from heroin overdose; in the first quarter of 1971, the figure rose to 35 deaths (Levine, 1974).

In early 1971, the Veterans Administration set up a treatment program for discharged heroin addicts. By June, 32 clinics treating 6,000 people were in operation. Treatment was primarily by methadone maintenance.

Also in June, 1971, President Nixon appointed Dr. Jerome H. Jaffe to head the new White House Special Action Office of Drug Abuse Prevention, which was to have overall responsibility for major federal drug abuse prevention, education, treatment, rehabilitation, training, and research programs. The only area that Dr. Jaffe's office did not oversee was the Federal Bureau of Narcotics and Dangerous Drugs, under the control of the State Department and the Department of Defense.

COMPREHENSIVE FEDERAL LEGISLATION

In 1970, the federal government passed the Controlled Substances Act; it provided, for the first time, a comprehensive, integrated set of regulations governing substance use and control.

Briefly, these are the main areas covered by the act:

- Five separate substance schedules are set down, according to the "*potential for abuse*" and current accepted medical use attributed to each substance group.
 - Schedule I: heroin; marihuana*; LSD; THC; hallucinogens.

*Like earlier legislation, the 1970 Act includes marihuana with heroin as substances whose users receive the most severe category of penalties.

- Schedule II: opium; morphine; Dilaudid[®]; Demerol[®]; Methadone; cocaine; liquid amphetamine.
 - Schedule III: amphetamines; Nalline[®], short-acting barbiturates; and Doriden[®], Noludar[®], Ritalen[®], paregoric.
 - Schedule IV: minor tranquilizers; long-acting barbiturates.
 - Schedule V: substances that can be sold over the counter, without prescriptions--primarily cough syrups, such as terpin hydrate with codeine.
- Separate penalty scales are provided for violations within each substance schedule.
 - The act differentiates between "addict," "user," and "trafficker" when setting penalties.
 - The jurisdictions for controlling drugs as they pass from manufacturer to distributor to consumer are specified.
 - Provision is made for including any new substances or drugs under the five schedules of the existing act.
 - The act calls for increased research regarding prevention of drug abuse, and for continued research on treatment and rehabilitation methods.

Also in 1970, the National Conference of Commissioners approved a Uniform Controlled Substances Act. Provisions outlined in the Act were to be adopted separately by each state. Like the federal Controlled Substances Act of 1970, this was an attempt to create a codified system of drug control, classifying all "narcotics," the "dangerous drugs," and marihuana into five separate penalty scales. Particular penalties were left to the determination of individual states.

TRANSITIONS: 1970 TO 1977

Drug use in recent years has meant neither the social stigmas nor the revolutionary political convictions that were partners of the drug culture in the 1960s.

One of the most significant patterns to emerge during the 1970s is that *there are no longer set stereotypes of drug users and drug use patterns*. Ghetto junkies aren't the only heroin addicts. Student radicals aren't the only people smoking marihuana and trying cocaine. Long-distance truckers are not the exclusive users of amphetamines.

At one time in the twentieth century, the statement "minorities are the heroin addicts" might have been largely true. Use of opiates once implied images of alien, ghetto-based "misfits." Vietnam challenged the preconceptions. The country saw a significant percentage of its white, middle-class young people return from the Vietnam War with the heroin habit. For the first time, the ghetto junkie stereotype wasn't adequate to describe the problem.

Use of other substances--marihuana, LSD, cocaine, mescaline, peyote, amphetamines--during the 1960s implied the user's belief in social revolution and his search for the cosmic knowledge Leary had promised. When Vietnam, Kent State, the marches on the Pentagon were over, the student radicals and the seekers began to disappear.

They became professionals, parents, members of the community. To some extent, most still used some of the drugs they had been turned on to during the decade before. Younger students kept their elders' patterns of drug use--but without the implicit social/revolutionary convictions that had been an integral part of what media liked to call "the youth drug culture." Again, the old stereotypes wouldn't work.

The Polydrug Phenomenon

Use of a particular substance can no longer be attributed to a single subculture. The pharmacological and street names of drugs, their effects and side effects, have received good press; society as a whole is more knowledgeable than it was. Sometimes, the knowledge has resulted in a greater tolerance toward use of a substance, such as with marihuana. Sometimes, the information has helped create a more knowledgeable drug user--someone who uses, even mixes, many kinds of drugs openly without the fear of societal and legal reprisals he once would have had.

The New York Times, in a March 25, 1973, article titled "Mixing of Mind-Altering Drugs Rises as Spread of Heroin Addiction Slows," attempted to analyze what has been called "polydrug use":

"Allowing for variations of region, age and class, cocaine, methadone and alcohol, and a variety of barbiturates and other 'downers'--most notably a sedative-hypnotic known as methaqualone--appear to be increasingly popular street drugs.

"And, while it is difficult to gauge the extent of the phenomenon, a considerable number of people appear to be casually using and abusing several drugs in often dangerous combinations--methaqualone and alcohol, or methadone and alcohol...

"In San Francisco, a narcotics police officer notes: Three years ago [1970] it was common to have five or six young people collapse in school every day from an overdose of barbiturates. We don't get that any more; the kids are becoming more sophisticated about drugs."

"As for heroin, a Chicago drug counselor observes: 'Word has gone out to the black community that smack is part of their oppression, and they are sticking to grass and psychedelics and pills, uppers and downers, for their highs.'

"Polydrug abuse, as the drug-mixing phenomenon is known, appears to be characteristic of both school-age dabblers and old-time junkies, who are finding it almost impossible to 'cop' (buy) good-quality heroin" (Markham, 1975).

Same Drugs, Different Campus

In the September, 1977, issue of *Esquire* magazine, a 1975 Yale University graduate talks about drug use when he was on campus.

It was, he says, a time of many drugs and few politics.

The trappings of rebellion hung loosely on us, like older siblings' clothes. We espoused hand-me-down politics and tripped on hand-me-down LSD...

We saw the drop outs of older classes crawling off to communes or hanging about the college...They were exhausted--refugees from themselves--politically, culturally and physically beat. A conveyor belt of new drugs, each with its own ideology and method, had carried them from Dylan to Trotsky to Baba Ram Dass...

Looking back, it is hard to overstate the importance of drugs. There was mescaline, Methedrine, Quaaludes, scopolamine, LSD, MDA, THC, barbiturates and Dex. Every dormitory had a well-thumbed copy of the *Physician's Desk Reference*; a remarkable number of students could talk at length about Ritalin contraindications. They were the same drugs that our elders had taken, but we took them without the same conviction--the goal had shifted from revelation to entertainment.

The effect of some of these drugs was not unlike drinking: Quaaludes were for evenings of bumping into tables and warm, cuddly sex. Speed of the garden variety, like Dexedrine, was strictly functional: something for exam time. Methedrine, the speed that killed, had the shortest fuse you could find. THC was a marihuana extract, MDA was a midrange pseudo-psychedelic, and nobody ever found out what the hell STP was. Mescaline was the war-horse hallucinogen; it was usually high quality, and you could take a good bit of it with no lasting effect. Acid was another story. Where mescaline just set you up for a good time, acid tore down the wall between you and what you were looking at. People who took a great deal of it are still wandering around saying things like "I don't need to use the telephone--they can hear me." One of my older friends, a South African poet, practically lived on the stuff. He published a volume of poetry about "helium-flowers" and "original spin," his eyes began to bulge, and he went back to Africa.

Drugs were for fun. On Passover some Jewish students would get together and smoke scopolamine, then go over to the dining hall and play poker with the matzos. Once I awoke at four a.m. and heard a strange murmuring. I looked out my window, and there, in the moonlight, was my freshman counselor, deep in conversation with a pigeon.

The same freshman counselor, an ace law student, once made the mistake of recruiting half of the students in his entryway as a moot-court jury. The jury prepared for the trial by dropping mescaline; when a verdict was requested, the law professors who filled the auditorium heard twelve happy men pronounce the judge, a prominent D.A., guilty of bribery (Isemand).

Marihuana: Changes in Attitudes

For marihuana, the 1970s represent a growing societal inclination toward tolerating use of the substance. While cannabis use is not legal *per se*, use has become so widespread that several municipalities and one state (Alaska) now impose no penalties for marihuana possession.

In its 1972 report *marihuana: a signal of misunderstanding*, the National Commission of Marihuana and Drug Abuse summarized contemporary conflicting opinions regarding possible revisions to federal marihuana policies:

Marihuana's advocates contend that it is no more or less harmful than alcohol and tobacco and should therefore be treated in similar fashion. The drug's adversaries contend that it is a stepping-stone to the narcotics and should remain prohibited. At the present time public opinion tends to consider marihuana less harmful than the opiates and cocaine and more harmful than alcohol and tobacco.

Interestingly, while marihuana is perceived as less harmful than before, alcohol and tobacco are regarded as more harmful than before. In some ways, the duality which previously characterized American drug policy has now been supplanted by an enlightened skepticism as to the variety of approaches to the non-medical use of various drugs.

Despite this shift in attitudes, however, the use of alcohol and tobacco is not considered a major social problem by many Americans, while marihuana use is still so perceived.

By August, 1977, prevalent opinion, though still ambiguous, had altered enough so that President Carter could propose Congress's passing legislation to "de-criminalize" penalties for marihuana possession. The August 15 issue of *Time* magazine, in an article titled "Carter's Grass-Roots Appeal. Can 35

million Americans be wrong about pot?," describes the current status of marihuana in the federal system:

"Penalties against the possession of a drug should not be more damaging to an individual than the use of the drug itself." So said Jimmy Carter in urging Congress last week to reduce federal penalties for possession of up to one ounce of marihuana, enough for about four dozen joints. For a first offense, the maximum penalty now is a year in jail and a \$5,000 fine for possession of any amount of pot.

The President's appeal stirred little enthusiasm on Capitol Hill, though an estimated 35 million Americans, including Carter's three sons, have smoked pot on occasion. Nonetheless, liberals hope that his message will enable them to get a hearing next year on a bill that would lower the penalty to a \$100 fine. The legislation has been stuck in committee for five years. Chief reason: polls show that most Americans still believe that pot is addictive, harms users physically and usually leads them to hard drugs.

What Research Proved

None of this has been proved in more than ten years of scientific studies. Early research raised fears that even occasional puffing on a joint might lead to personality changes, birth defects, brain shrinkage, sterility in men, lowered resistance to disease and heart damage. Other studies have disputed these findings. Moreover, several studies have indicated that the major active ingredient in pot, tetrahydrocannabinol--(THC), might even have medical uses. THC expands bronchial passages, which helps asthma patients breathe easier. It decreases pressure inside the eyes, which alleviates glaucoma. It also controls vomiting, relieves depression and, in some cases, eases pain.

Minimal Risk

Although a final verdict must await further studies, most researchers now believe that aside from rare bad trips by novice smokers, marihuana is hazardous only for chronic heavy users--people who get stoned nearly every day. They risk becoming psychologically dependent on pot and damaging their lungs with the tar in

marihuana smoke. But light or occasional use of marihuana--once or twice a week--usually produces only a pleasant high, no more dangerous than mild intoxication from alcohol. Of course, pot like alcohol affects users' judgment and reflexes, so it can lead to accidents if people drive or operate machinery while high.

Legal Status in the States

Alaska has no penalties at all for possession of small amounts. Nine other states* have reduced the penalties; 34 more may follow suit. Entrepreneurs would like to cash in on the growing demand for pot. Louisville Promoter Gatewood Galbraith has organized a grass-roots campaign to put Kentucky in a position to corner the market if and when pot is legalized. Says he: "Kentucky's already got pari-mutuel betting. It's got whisky and it's got tobacco. You just can't beat the combination of marihuana and money." Under his plan, the state would license growers and retail dealers. He calculates that the scheme would cut in half the street price of pot (now about \$25 per oz. in Louisville) and earn Kentucky about \$150 million a year in fees--a heady prospect for politicians who would like a painless way to cut taxes and raise revenues at the same time.

*California, Colorado, Maine, Minnesota, Mississippi, New York
North Carolina, Ohio, Oregon.

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MARIHUANA: PERIL OR PANACEA?

by

Sandra Winchester

Commonly referred to as marihuana, grass, weed, pot, ganja, dagga, bhang, charas, keif, hashish or hash, Cannabis and its products which are derived from the hemp plant Cannabis Sativa have a history of medicinal and social use dating back to the second millennium BC in China and the early 17th century in the United States. Extensive research has been conducted on marihuana since its formal introduction into Western medicine by British Physician W.B. O'Shaughnessy in 1839 (Christie, 1974). It has been the subject of political and public dispute, and approached on moral, medical, legal, and ethical grounds throughout the history of its use in the United States. The resurgence of marihuana's use in this country since its reintroduction in the 1960's as a social drug has brought renewed attention.

MYTHS, STEREOTYPES, AND CONFUSION

The active ingredient in marihuana is delta-9-tetrahydrocannabinol (THC). It was synthesized in research study in 1965 by Raphael Mechoulam of Hebrew University of Jerusalem supported by the National Institute on Mental Health (NIMH). (Cohen, 1978). Since then, knowledge from controlled experiments about the chemical action and effects of marihuana, its constituents and synthetics, and the implications of their use for the public health has been compiled and reported in thousands of articles and research journals and covered extensively in the mass media.

Despite information gleaned in the last decade to indicate that more is known about marihuana than any other single drug, it is an emotionally laden subject about which myths and stereotypes persist. For example, 1977 Gallop Poll estimates were that 59 percent of the population believed marihuana led to the use of harder drugs (Fla. Times Union, 1978) even though the general scientific community in reports as early as 1963¹ and the more recent Marijuana and Health, Sixth Annual Report to the U.S. Congress From the Secretary of Health, Education, and Welfare definitively concludes:

marijuana does not cause other drug use in the way once simplistically believed although it is often associated with other drugs (1976).

Marihuana is in fact one of the most widely misunderstood drugs. This is what prompted the National Commission on Marijuana in 1972 to entitle its report Marijuana: Signal of Misunderstanding.

Largely due to the efforts of Henry L. Anslinger (then director of the Federal Bureau of Narcotics) and alcohol prohibition agents in the early 1930's, marihuana was heralded as causing immorality, corruption, insanity, and heinous and violent criminal acts. Through Anslinger's lobbying efforts the first Federal legislation, The Marijuana Tax Act of 1937, was passed to control use of the drug.

Despite considerable evidence to the contrary, the 1951 Boggs Act classified marihuana as a narcotic (Korook, 1978). Accordingly, use of this drug has been subject to legislation since that time.

The fear incited through drug education campaigns in the 1950's and 1960's served to further cloud the issues. Scare tactics (sensational attempts to inform the public of the deleterious

effects) helped to spread rumors and half truths.

In the 1960's marihuana came to be associated with unconventional, anti-authoritarian, counter cultural, and hedonistic personalities. Today some people regard the drug as good or bad based on their like or dislike of the values and lifestyles attributed to its users.

Despite an impressive amount of information collected on the effects of marihuana and its long history of use, debate on this drug continues to revolve about a potential for physical and psychological harm. The mass of research data compiled in an attempt to define the effects of short term and chronic use of the drug is contentious. Rarely have two scientists come up with the same results in a given study. The reporting of research through the years has only added to the confusion. Studies often received national attention before attempts were made to replicate their findings.

AN INVENTORY ON RESEARCH

Confusion and controversy persist about pot despite extensive medical research to elucidate its effects. Research has focused on the following major areas: acute physiological effects, alteration of motivation, progression to other drugs, crime and violence, effects on cognition, effects on motor coordination, acute anxiety and psychosis, brain damage, chromosome abnormalities and fetal defects, immune response, endocrine functioning, cardiovascular functioning, pulmonary function, alteration in cell metabolism, tolerance, physical dependence, and therapeutic potential.

In an attempt to put current knowledge about marihuana in perspective, an inventory of its effects as recorded in the literature to date is provided.

Acute Physiologic Effects

The physiologic effects of marihuana are recognized to be slight. The most common reported physiologic responses are a dose related tachycardia (an increase in heart rate), reddening of the eyes, and dilation of the bronchi.

Perhaps the most prominent physiologic response is an increase in heart rate. This effect has been shown to occur after smoking marihuana or after oral administration of delta-9-THC. One study indicates the effects after smoking reach their peak in 20 minutes with a gradual return to near normal after 85 minutes. No difference is reported between experienced and inexperienced users, and it is suggested that marihuana may alter heart rate by changing autonomic tone (Rosengard, 1978).

Reddening of the eyes is consistently observed and is not caused by irritation from smoke as it is produced by orally administered extract and synthetic delta-9-THC. Reddening reportedly develops slowly, reaches a maximum in approximately an hour and then diminishes (Rosengard, 1978).

Dilation of the bronchial tract is consistently reported (Tashkin et al., 1974, 1976a; Vachon et al., 1976a, 1976b).

Acute and chronic toxic reactions to marihuana have been reported to include a heavy drugged feeling, dizziness, and nausea. These reactions seem to occur most frequently with oral ingestion or with inexperienced smokers. Acute collapse including temporary renal failure, lowered blood pressure, inflamed liver, chills and fever, and leucocytosis after intravenous injection of marihuana have been reported, but may have been caused by factors such as injection of insoluble chemicals into the bloodstream, blood poisoning, or allergic reactions (Rosengard, 1978). Serious acute affects of smoking or ingestion of marihuana are rare, however, and it is generally believed that moderate use is harmless. The HEW 1976 Report to the Congress on Marijuana and Health goes on to say:

We have become increasingly sophisticated in areas as diverse as the chemical characteristics of the material and psychosocial implications of use. Some of what has been learned has served to allay many of the emotionally based fears of the past. . . . it now appears that infrequent experimental use at typical U.S. levels is usually without hazard. . . (1976).

The ratio of lethal dose to effective doses is one of the highest known and is estimated to be in the range of 20,000 to 40,000 to 1 (Grinspoon, 1978). No reports of death from overdoses of marihuana have been substantiated.

It is generally considered that due to the limited number of carefully controlled longitudinal studies, the long term effects of more frequent and chronic use are unknown.

Alteration of Motivation

Throughout the 1960's and first half of the 1970's, it was widely feared that heavy cannabis use produced a lack of traditional motivation. Society feared a generation of dropouts smoking dope on street corners. The term "amotivational syndrome" was coined by UCLA Department of Psychiatry Chairman Louis J. West, who described a belief that marihuana use caused a loss of will and a diminished capacity to think straight (Zinberg, 1976). Although this notion has generally been discounted, it is still fairly recent and the theme is echoed from time to time in public opinion.

In 1970 conflicting reports were issued: The National Clearing House for Drug Abuse claiming that, academically, marihuana smokers did as well as nonsmokers, and the Federal Bureau of Narcotics a month later claiming the opposite (Zinberg, 1976).

More definitive studies such as the HEW 1972 Second Annual Report to the Congress on Marijuana and Health (Zinberg, 1976), studies of UCLA investigators Joel S. Hochman and Norman Brill published in the American Journal of Psychiatry in 1973, and results of a study conducted at the University of California at Berkeley from 1970-1972 (Carr, 1978) found no motivational differences between high school and college users and nonusers.

An extensive study of Costa Rican working class users by University of Florida investigators William E. Carter and Paul L. Doughty under contract with the National Institute on Drug Abuse (NIDA) found an inverse relationship between level of cannabis use and work stability:

The heaviest users have the highest incomes, the least unemployment and the most stable job histories of the entire user group. They also more frequently report that their preferred activity while intoxicated is to work. (Carr, 1978).

The average user in the study smoked marihuana cigarettes daily for 16.9 years. The average number of cigarettes smoked was 9.6 and, occasionally, for some persons up to 80 cigarettes daily (Carr, 1978).

These reports and others of Jamaican working class users (Carr, 1978) indicate that even chronic and long term use of marihuana does not produce an "amotivational syndrome."

Progression to Other Drugs

Another common fear and a persistent myth about the use of marihuana may be described as the "stepping stone hypothesis." This is the belief that marihuana leads to the use of other drugs and inevitably to hard drugs, i.e., heroin.

Drug use surveys all tend to confirm that the use of any drug is statistically associated with the use of all other drugs. Although marihuana tends to be the first illicit drug in the time sequence of using a variety of drugs, alcohol is the first licit drug used in the time sequence (Carr, 1978).

In 1975 NIDA supported a nationwide survey to measure the nature and extent of nonmedical drug use including alcohol and tobacco. In this study of 2,510 males aged 20-30 years, the simplistic causal links were not held to exist. A partial reporting of the results follows:

- Heroin users are likely to have at least tried almost every other drug: tobacco, alcohol, marihuana, psychedelics, stimulants, sedatives, opiates, and cocaine.
- Alcohol was almost always the first drug for users of multiple drugs.
- For 96 percent of those who used both cocaine and marihuana, marihuana had been first.

- For 90 percent of those who used both marihuana and heroin, marihuana had been first (Carr, 1978).

The conclusion:

While these data do not show that the use of marijuana leads to the use of heroin or cocaine it is clear that one behavior clearly precedes the other in time (Carr, 1978).

The Hochman and Brill study and the HEW 1976 Report to the Congress on Marijuana and Health conclude that marihuana use accompanies that of other drugs but does not cause the use of other drugs.

Crime and Violence

The notion that marihuana use is associated with crime and violence dates back to the 1930's.

In 1972 the National Commission on Marijuana and Drug Abuse in a review of the evidence to that date on the link between marihuana use and crime and aggressive behavior concluded:

There is no systematic empirical evidence, at least that drawn from the American experience, to support the thesis that the use of marijuana either inevitably or generally causes, leads to or precipitates criminal, violent, aggressive, or delinquent behavior of a sexual or nonsexual nature (Carr, 1978).

An area of investigation which has gained interest in the recent years which has possible implications for human behavior is the study of animals in social interaction. Research shows that marihuana suppresses aggression in animals not under stress, but for those under stress marihuana tends to increase aggression. This indicates that the relationship between marihuana and aggression is more complex than previously believed (Abel, 1975).

Animal research is informative, but whether similar results would be observed with humans in stress situations is unknown.

Social interaction of monkeys in groups with three to six members was studied by E.N. Sarrenrath and L.F. Chapman. Monkeys were given oral doses of the equivalent of very heavy human cannabis use. Initially aggression was reduced but, after weeks or months of receiving THC, it increased and they became irritable (HEW, 1976). Again, extrapolation from such data to human behavior is difficult and uncertain.

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ALCOHOL USE

By

Gayle R. Hamilton

Nearly every civilization that has inhabited the earth has made and consumed alcoholic beverages. Alcohol has been used in religious ceremonies and in the celebration of social events. Various cultural groups developed different patterns of use: some consumed alcohol in large quantities throughout one large social celebration every weekend with no known dependence patterns during the week as we see them; others used alcohol daily as a beverage with primary problems manifest only when, for medical or other reasons, drinking had to be stopped - then, withdrawal would occur; still others developed patterns of abuse in the form of uncontrolled and binge drinking.

In the U.S., consumption increased sharply just after the turn of the century and remained high until shortly before Prohibition. This rise in consumption, however, was largely due to an increase in the use of beer.

The 18th or "Prohibition" Amendment passed both houses of Congress in December 1917, and was ratified by three-fourths of the 48 State legislatures 13 months later. From 1920 until 1933, the manufacture, sale and consumption of alcohol was prohibited in the United States. However, as with tobacco, the opiates, and cocaine, legislation failed to create a general climate of abstinence. Though per capita sales were less "alcohol remained available during Prohibition. People still got drunk, still became alcoholics, still suffered *delirium tremens*. Drunken drivers remained a menace on the highways... the courts, jails, hospitals, and mental hospitals were still filled with drunks...

"Instead of consuming alcoholic beverages manufactured under the safeguards of State and Federal standards...people now drank 'rotgut,' some of it adulterated, some of it contaminated. The use of methyl alcohol, a poison, because ethyl alcohol was unavailable or too costly, led to blindness and death; 'ginger jake,' an adulterant found in bootleg beverages, produced paralysis and death. The disreputable saloon was replaced by the even less savory speakeasy. There was a shift from relatively mild light wines and beers to hard liquors--less bulky and therefore less hazardous to manufacture, transport, and sell on the black market. Young people--and especially respectable young women, who rarely got drunk in public before 1920--now staggered out of speakeasies and reeled down the streets. The speakeasies stayed open night and day. Organized crime syndicates took control of alcohol distribution, establishing power bases that (it is alleged) still survive. Marijuana, a drug previously little used in the United States, was first popularized during the period of alcohol Prohibition...and ether was also imbibed" (Brecher, 1972). Despite vigorous efforts by the Federal Government to enforce the 18th Amendment, alcohol prohibition proved unenforceable.

The 21st Amendment repealing prohibition was passed in February 1933. It was ratified by the required number of States in less than 10 months. The 21st Amendment returned to individual States the power to retain statewide alcohol prohibition, and made it a Federal offense to ship alcoholic beverages into states where it was prohibited by law. But the states, too, had learned it was impossible to keep citizens from drinking. One by one, each repealed its statewide antialcohol legislation, with Mississippi the last state to surrender--in 1966.

By WWII, per capita sales had returned to pre-1900 levels and continued to rise, again with beer sales making up the bulk of per capita increases. These recent gains in drinking are thought to be due to the increase in proportion of young people and women who are now drinking.

Research has clearly established that alcohol is the most abused drug in the United States and its abuse is increasing exponentially each year.

Our cross cultural studies may lend some insight into the high rate of abuse in this country. Comparisons of the drinking practices of a variety of cultural groups suggest strongly that a significant variable in responsible (non-abuse) drinking is consistency of attitudes toward drinking. That is, when a person is, and remains a part of, a reference group that consistently has positive attitudes toward the use of alcohol and negative attitudes toward drunkenness, one is less likely to abuse alcohol.

This set of attitudes is not typical of our culture today, however. We are and have been characterized by extremist attitudes. Because of our mobility, we are exposed to a wide variety of attitudes and the very quality that has been found to relate significantly to alcohol abuse: inconsistency.

Approximately one-third of our population abstains. Perhaps half of these people retain attitudes left over from Prohibition days: alcohol is inherently evil. On the other hand, nearly one-tenth of our population indulges in heavy drinking and, of those who drink at all, 36 percent can be classified as being either problem drinkers or as having potential problems. We are familiar with the attitudes of many among our drinking population: not only is drinking okay, but drunkenness is fun, funny, a sign of manliness, "with it," etc.

Additionally, our drinking population has remained blind to the simple fact that alcohol, too, is a drug, with a greater threat to the quality of our lives than those drugs that have consumed our attention over the past several decades. This awareness is slowly changing, but another blindspot remains steadfast: in 1975, 64-66 percent of the population claimed that "alcoholism is basically a sign of moral weakness." This attitude seriously constrains early identification and treatment. Consequently, alcoholics get treatment only after the disease has become physically and socially debilitating, making treatment more complicated. This attitude has also encouraged the exclusion of alcoholics from health and social service benefits, such as insurance coverage for treatment — a benefit given to those with physical or even psychiatric disorders.

Public concern for this problem was not aroused until the 1960's, it was not until late 1979 that alcohol abuse became a national priority. At that time the Alcohol Abuse and Alcoholism Prevention, Treatment, and Rehabilitation Act (Public Law 91-616 — referred to as the Hughes Act) was passed. This law established a National Institute on Alcohol Abuse and Alcoholism (NIAAA) as a primary vehicle for Federal activities related to alcohol related problems. Funding for this agency, however, has never reached the proportion of funds provided to the National Institute on Drug Abuse (NIDA). Our public attitudes were now clearly shifting from a focus on the inherent properties of the drug as evil to focus on defining the characteristics of those persons who misused the drug. Another milestone in growing public concern for the problem of alcohol abuse was the promulgation in 1971 of the Uniform Alcoholism and Intoxication Treatment Act (The Uniform Act). This act essentially states that alcohol abusers should be afforded treatment rather than subjected to criminal prosecution. This act has gained wide acceptance: 35 States, plus Puerto Rico and the District of Columbia have enacted all or part of this law.

The passage of this act itself reflects the changing public awareness of and attitudes toward alcohol use and abuse. It demonstrates another basic shift in attitudes from moralizing about those who misuse the drug to a recognition that these persons needed treatment. It is a move toward developing a climate within which persons can more readily accept their status as a problem drinker and seek help as they would for any other medical disease.

DRUG LAWS: PERCEPTIONS OF ILLEGAL DRUG USERS*

by

Dennis T. Jaffe

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DRUG LAWS: PERCEPTIONS OF ILLEGAL DRUG USERS

ABSTRACT

Rarely have laws been so widely disrespected and broken as the current criminal laws against drug possession and sales. When a young person uses an illegal drug, he faces not only the effects of the drug, but also the consequences of society's designation of him as a criminal. This paper explores the consequences of the legal response to drug use on the attitudes of young drug users, through accounts of their perspective on the drug laws at different stages of drug use. While it is hard to separate the effects of the drug laws from simultaneous factors like personal and lifestyle changes or drug effects, it is felt that the perspectives presented here do represent consequences of the drug laws on a certain group, more than they represent the effects of the drugs themselves or characteristics of the groups which take them.

The data reported here come from a larger study of drug use and the youth culture in five communities [1]. Long, open-ended interviews were conducted with 123 middle class young people (mean age 23), most of whom had (or expected) some college, and who mainly identified themselves as part of the "youth culture." They all used marijuana and psychedelic drugs, which they strongly preferred, and half also used other drugs (heroin, amphetamines, barbiturates). There seemed to be a fairly representative drug-use pattern, consisting of a limited period of extensive drug use, beginning in the late teen years and lasting from 6 to 18 months, followed by a decline of interest in drugs and moving on to other "counter-cultural" pursuits, such as communal living, meditation, alternate service work, or recommitment to some form of education. The interviews focused on their life history and decisions around drugs. The quotes in this essay come from their replies to questions about their relation to drug laws.

I want to propose a five stage process of development of a perspective on

drug laws. Not every subject went through every stage (although the first two stages are almost universal), but most subjects eventually reached the fifth stage, through some experiences characteristic of the third and fourth stage. Similar processes have been described among radical and militant youth, and in the youth culture [2], but most often the characteristics of stages three and four are seen as characteristic of different personality types, rather than as consequences of each other, which I take to be the case.

The stages are:

1. An impulsive or personal decision to try drugs, with the law having little or no effect on it. *Action.*
2. A social group uses drugs, and develops a rationalization for its illegal activity, as well as a shared conception of itself as an "outlaw culture." *Group support.*
3. The group builds a shared theory of political dissent, and connects their theory to other events and information. *Rebellion.*
4. The individuals develop a heightened sensitivity to civil liberties arguments for drug use, and feel controlled unjustly by the drug laws, as they seek to withdraw into their own private pursuits. *Withdrawal.*
5. They end up with a more tolerant perspective on drug laws and an understanding of cultural contradictions and the relativity of social norms. *Reintegration.*

Stage 1: Action

The initial use of illegal drugs comes about either impulsively (they are there and the subject tries them without much reflection), or as a resolution of cognitive dissonance between the positive experiences of friends and the negative information passed on by authorities [3]. The law is not seen as consequential, either because there seems to be only a remote possibility of arrest, or because the risk is outweighed by the potential gain. Two quotes from college students illustrate these attitudes:

I saw the law as basically irrelevant, because of all the legal harmful things I could do to myself. I saw the greatest risk involved as the potential risk I could do to my psyche or body. And I was taken up by what might happen on that occasion and not by the social aspect of it. My first experiences were intimate experiences among people that I assumed that I knew, and it bore little relation to a sort of illegal thing. I didn't realize that I had ever read anything about anyone being arrested except for these great pill magnets who used to get arrested with 10,000 or 100,000 pills. So it really didn't strike home at all.

Somebody said to me something about this guy might have trouble getting through customs. I really didn't care about the law. I just wanted to get high. Getting high there was definitely the highlight of my two weeks, and I was trying to figure out when I was going to do it again.

While the law did not deter people at this stage from trying drugs, the

existence of such laws does seem to have marked effects. For almost all of the subjects, breaking drug laws was their first criminal act, which heightened their fears and often had a negative effect on their self-image, creating the conflict which propels them to the next stage. A college sophomore reports:

I was paranoid. The law always meant a great deal to me: if it wasn't to be done, I didn't do it and nobody else should. And to have something that was illegal, there was always the constant fear of being penalized for it. And I could not imagine myself going through the ordeal of even getting arrested, having one time gotten a speeding ticket and having been traumatized by it. And I imagined that to get busted for drugs would be a thousand times worse, and I'm not sure how that would have affected me. So I was in a constant state of paranoia, not just when taking drugs but anytime we had any on the premises or being with people who were pushers or had the drugs on them or in their house.

Stage 2: Group Support

The second stage stems from the practice of an act which is termed criminal. The fear of arrest and the possibility of developing a negative sense of oneself lead to the formation of social groups which counteract this by creation of a strong sense of group solidarity and a shared exploration of the reasons why they condone such illegal behavior. They develop a rationalization, a shared theory, of why they do what they do, and feel cut off from social groups which disapprove or condemn their behavior.

Since most of our subjects share the middle class conception of themselves as law-abiding citizens, it is important for them to develop convincing reasons for their behavior, while at the same time they often try to deny the existence of the law, producing an apparent contradiction. A youth counselor exemplifies this:

The first time I started thinking of getting stoned as being illegal, the absurdity of the law hit me to such an extent that in effect I've blotted the law out of my mind. It's so absurd that getting high is so illegal, as to get you some years in prison; the irrationality of that has made me totally neglect the law, or not even think of it, except when I'm reminded by seeing the police when I'm carrying dope. I remember there is a law and that I'm breaking the law. At the same time, I think it is absurd that it should be illegal.

Also characteristic of this stage is a developing we/they feeling, a sense of being opposed to groups who uphold the drug laws, and consequent projection of anger and stereotyping of them as "bad." There is also a rejection of negative attitudes toward themselves by wearing labels proudly, as when drug users designate themselves as "freaks," or "outlaws." A student who soon dropped out and became active in student organizing, says:

I was just thinking of that when I said I hated cops. That's really one of the early steps in political awareness. I mean it's identifying which side you're on. And the people who use drugs and the people who bust them are definitely on different sides. So I guess in some ways you take a risk smoking dope or whenever you break the law and that makes you question the law itself. Is it really fair? Does it represent the people's wants and needs?

The presence of other kinds of harassment of youth culture activities, which

several subjects perceived as selective enforcement of laws like loitering as well as drugs, is mentioned as contributing to the development of a sense of difference, and self-justification of their behavior as opposed to the rest of society. Their attitude toward society is a mirror image of society's view of them, at this stage. Two high school students, one black and one white, report a view typical of this stage:

They are hasseling the coffeehouse where we all worked. It was a constant struggle to stay ahead of the man, and you knew who your friends were because of the solidarity of drugs. It was a common criminality. It pitted us all against the great them which was the law and anything authoritarian.

At first, in the suburbs, you didn't think terribly much about getting busted. Later on people did get busted out there, but not then. In the city you could get paranoid vibes. After a while you got into radicalism and developed a sort of consciousness about it, and then you cultivate a sort of paranoia, sort of cultivate a vision of yourself as an outlaw.

While the youth culture is often seen as an attempt to live by new values or resurrect old ones, some of its intensity can be explained as a collective defense against the pressures of social sanctions against drug use. Several subjects mentioned a phrase from a song by the rock group Jefferson Airplane, "we are all outlaws in the eyes of Amerika." Along with the solidarity and attractiveness of the youth culture, a whole chain of experiences ranging from pain and frustration to withdrawal (characteristic of the next two stages) is set in motion. A girl who has left the city for a rural commune says:

The outlaw culture is a whole thing. That you're doing something you want to do that's considered illegal and immoral by the larger culture. That's a bond that brought me closer to a whole lot of people because we were getting pleasure from such things. Drugs just help define that culture. It's much more than that. It's living in a commune and collectively dealing with the children. These things are important. Relating to "my man" differently, taking some of the importance off that relationship because I have other people who are important to me.

Stage 3: Rebellion

From being an "outlaw," which is an identity attributed to them, drug users usually move on to a more active, positive definition of themselves and their behavior as "dissent," "rebellion," or "activism," and connect their drug use with other forms of dissent against perceived injustice. Drug laws are seen as one form of a general oppressiveness, and a perceived characteristic of the drugs (in this case being "deconditioning agents") is offered as the reason for the sanctions against them, as shown in this statement from a professor:

Drug laws are a part of the power trip. It's the idea that if you hold a whip over somebody he'll do something. And that's not proving to be right. Drug use used to be a political act when a ridiculous drug like marijuana got a ridiculous sentence like it did before. In terms of being a deconditioning agent, it's still a political act. Breaking up the educational and propaganda system to some degree. In that sense it has to remain a political act. But I think that if you're going to perform political acts, there are a lot better ones than drugs.

Another teacher makes the connection between his personal experience of drug laws and laws against homosexuality:

There was a slow disintegration of my respect for authority since I was doing something that felt good and right and it was illegal, and that didn't seem to make any sense. Being paranoid about dope had primed me to think more critically about laws. How alien laws were compared to my feelings and experiences. Also in relation to my sexuality. It got that personal. Not just the laws against homosexuality; it was the people, not just legislators and cops, but close friends, who turned freaky at the mention of homosexuality. Most couldn't even conceptualize it. That started my alienation from a lot of things like law long before drugs, although my awareness was heightened through the use of drugs.

There seems to be a generalizing effect from using drugs as rebellion, to other political activity and a broad critique of society. It can go in either direction, as this counselor shows:

We were breaking a law—that was the first major way I got into breaking laws. I guess that's the only major law that I've broken with the exception of civil disobedience last May in the Washington march. So that was a definite political act—it did change my head around somewhat in relationship to the legal situation. I stopped looking at policemen as my friends and started looking at them as people to be watched out for. Ethically it didn't mean too much at all 'cuz I'd become aware over the last 3 or 4 years prior to that that there wasn't much relationship between legality and justice or righteousness. So I didn't have any moral or ethical problems with breaking the law, only a certain amount of paranoia and care not to get busted 'cuz at that point we were all in college and planning to go places.

Many subjects came from a middle class background where they had heard about injustice, but never experienced it in relation to themselves or their desires, and when they feel wrongly treated, as in the case of drug laws, it leads to a sense of empathy with other people they see as treated unfairly. It also leads to a desire to do something about it. While they might have got in touch with such issues without drug use, they feel that drugs speed up the change process [4]. An artist who lives in the country, and an urban high school student offer these views:

I am never sure which comes first, disrespect for the laws and the whole system or the use of drugs—those two are very interrelated. I know for me it was a change in values first that influenced me not to use drugs. For others that are straight they haven't thought about a lot of these things and then they try drugs and then they change maybe because of the people they associate with that use drugs.

Obviously my respect for the laws changed because I am using illegal drugs and the fact that they are illegal hasn't stopped me any. I don't know that I even thought about the laws before, if I ever really decided whether I respected them or not. I wasn't breaking any laws or anything. But then I'm not breaking any other laws now either. I suppose I question some of the things that happen to drug users because I am a drug user. Since being into drugs and being a so-called hippie, that sort of stuff like police brutality is really brought into focus.

This conception of the mutability of laws, and the personal decision that an individual can break them if there is a moral reason to do so, is characteristic of what several researchers have seen as a widespread breakdown of the legitimacy

of all authority [5]. It has been mentioned in many places that the effects of the Vietnam war have done much to erode faith in authority, increased youth's cynicism about the political process, and contributed to the spread of drugs. These two quotes from veterans offer a view of the attitude in the military, which contain much of the rebellion found in other parts of the youth culture, but with the addition of elements of despair, self-destructiveness, and anger:

I think that using drugs in the context of American society today is a political act. It's an act of rebellion, of stepping out of the approved way of doing things, or something. Drugs can be very political. I mean like the way the Vietcong are using drugs in South Vietnam, making them readily available. The American army isn't hit in the battlefield, they're doing it in the barracks. And there's the use of heroin to both control and stir up the black community in this country especially.

I worked for two months with the prisoners in the stockade who were there for dope. They showed me their lifestyle that they want to live when they get out of the army. They want to live completely opposite to the army's style, on a farm or in a commune or something like that. Almost all of them want to take drugs, hard drugs. They say they want to die with a needle in their arms. They feel a definite rebellion against the government, and I guess they show that by using drugs.

Stage 4: Withdrawal

If stage 3 characterizes the "activist" youth, stage 4 would be styled the "hippie" youth, although our research finds that the two are closely interrelated, and represent different emphases or stages of awareness rather than different types of people. This stage begins on both a positive and negative note—the frustration and cynicism resulting from a broad indictment of society coupled with an inability to form a meaningful strategy to react to it on the one hand, and a positive interest in more immediate aspects of personal growth and change. In relation to the drug laws, the attitude is withdrawal, the desire to be left alone and not confront social injustice in others, and a critique of the laws which emphasizes civil liberties rather than injustice. The view articulated by a rural high school student is typical of most of our subjects:

I have broken the law quite a few times and it doesn't make me feel too bad at all. It does make me feel good. I don't have too much feeling toward the law. It just pisses me off that people can be—I don't know—like the Declaration of Independence, you can do what you want just so long as you don't fuck with the other guy's rights. I can see like if you were stoned and were ripping people's telephone wires and TV antennas down, then I can see busting someone for dope. But as long as you are just getting high I don't see anything wrong with that at all.

We have some evidence that younger subjects skip rather quickly over the rebellion stage, and move into this stage, provided they are left alone.

As a justification of their views, most subjects point out a contradiction which they see in social policy regarding drugs, which they see as not respecting their drug of choice:

I think grass should be legalized. It's a good high. It is something that relaxes you. First off there is nothing really damaging to you any more than stuff already available like alcohol or cigarettes. I think that we have a hell of a lot of better things to spend our money on than trying to bust kids that are using pot.

Sometimes I'll wonder why liquor is legal, and marijuana can't be, because they do about the same thing to you. Only marijuana is better for you. And it's made me wonder about the police and a lot of things like that, because it's something that's illegal.

For marijuana or cannabis, hashish, it's really insane to have a pack of cigarettes that you can legally buy, if you're over 18. And under 18 you can buy anyway, whether legally or not; with a sign that says that the surgeon-general has determined that cigarettes are hazardous to your health, that they can kill you. While at the same time, marijuana which there is no verified proof at all that it can physically or mentally harm you; unless you're a psychotic, and a prune could hurt you if you're psychotic enough. Drugs are illegal, and it could ruin your life if you're caught. The drug laws in our society are about as apt as the blue laws and the sex laws. It's like telling somebody that they can't drink milk, that it's going to drive them nuts.

They fear being controlled, having other social preferences forced on them which would interfere with their seeking out their own interests. A high school student and two college students suggest:

The people who take drugs should make the drug laws, if there are going to be any good laws. Otherwise, I don't see any use for them at all. I see drugs as a way of helping people to do something about their political awareness. If you use something that opens up your eyes to see—you have to take responsibility for what you see. I don't think the government has the right to tell me to take a drug or not take a drug. I'll tell them.

What frightens me more than anything else is that drug laws are indicative of a tendency in the U.S. to consider that there are crimes against the self. That's so totalitarian that an individual can't do as an individual wishes to himself, but that father knows best.

Yes, in a real sense it is. I think politics and government is trying to control every facet of the people. It wants to control and not listen to the needs. When you ask that question I think of revolutionaries. I saw a film the other night, where if you did anything against the law you were considered a revolutionary. If you said something that was against the government or smoked dope or anything. I think now that there are so many people who smoke dope that the whole law should be revolutionized.

A girl who moved from the activist stage to become a member of a yoga commune, illustrates the transition well. She realizes that rebelling keeps one in relation to an authority system, while withdrawing and forming a new group separates one entirely from a system one wishes to escape:

I felt that many times when I was doing it—I was dealing in front of policemen without them knowing, and that was the greatest thing in the world. "Them" and "us" again. The cops and the robber—the cops and the freaks. I guess at times I was doing it as a political act—I was rebelling against society—if that's what it was. But it wasn't that at all. All you're getting yourself into is loss of political freedom 'cuz what you're doing is you're becoming part of it—you're becoming part of the whole political machine. By rebelling politically, you're becoming political. If you get outside of all that you are really rebelling—you are really having a revolution, a change of the entire understructure, which is why we are here.

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Stage 5: Integration

This stage could be called an acceptance of social relativity. It signals a renewed ability to perceive accurately the interests of other social groups, those which previously were seen as oppressing one, and seeing the weaknesses of one's own earlier positions. It signals a kind of cultural pluralism, with genuine tolerance rather than withdrawal, an ability to see that authority can be good or bad, and to make differentiations between different degrees of injustice. People at this stage may still engage in political or counter-cultural activities, and most do, but their attitude towards them is less one of anger, resignation or cynicism, than of cautious optimism that meaningful action can be taken, even within a highly oppressive situation. It is clear that this stage has a lot to do with general maturity, as this quote from a college girl shows:

For a long time I rebelled against authority and now I'm accepting it when I see that the person in authority has the intelligence to be in authority and only then. Sometimes that refers to bosses; sometimes it refers to cops and judges and politicians. I definitely rebel against those kinds of authority because I never can tell by their fucked-up reports what they're doing and how they're feeling. Especially the law enforcers and lawmakers of America—they're bums. This change has a lot to do with drugs. Just the way I see people. I used to see these grown-ups as gods; you did what they told you and if you didn't you were wrong and you were punished. And now I see it as these people off in some nebulous world of their own, telling all these other people what to do. And the people off in their own world often don't even see the other people, they don't know what's going on with them as far as money, family, drugs, anything. And they try to make these decisions and they just don't know what they're talking about part of the time. I mean they get all these statistics and they don't know about individual people. That's definitely changed. I never thought of that before I started smoking marijuana and taking acid. I never thought of these people who were sort of commanding my life—running my life for me.

This stage is also characterized by a heightened sensitivity to other groups, and to the effects of one group's actions on another, arising from their previous experience with drug laws. Another example of this attitude comes from a teacher in a rural free school:

As far as I'm concerned, drugs are legal. People have made it legal, and it's only a matter of legislation to make it all right in the society's minds. But people are doing it, aren't they, and people are making a killing out of telling people not to do it. So I'm not going to blame anything on the drugs themselves, it's the way people's attitudes are. I think most drug problems come not from people's reactions to it, but from trying to explain to society why Johnny wants to drop acid, and why Susie is smoking grass. And it's not as though they are having bad trips, because they're not. It's just that the situation in the community they're in says it's unacceptable, and it's a very touchy situation and it has to be worked through. But I'm not against drugs. I'm not against people having a good time.

Discussion

My research [6] stresses the theme that drug use is not a static behavior that a group of people engage in unvaryingly, but rather part of a process of

developing a conception of oneself, in relation to a society which one does not entirely accept and agree with. The laws against drug use seem to become a part of the context against which young people struggle to define themselves and grow. Their attitudes toward the law, as well as their use of drugs, change over time, and develop along lines which parallel other developmental schemes offered to account for changes in student values, attitudes, and behavior. The law is taken as the embodiment and symbol of certain values which young drug users struggle against, and they connect the existence of drug laws with other situations that they characterize as unjust or oppressive, or disrespectful of civil liberties. It would seem to follow that to try to compel obedience to the laws, simply because they are the laws, is both impractical and unwise, because the young drug users we interviewed seem to be exploring and redefining their values and behavior in ways that lead them to question laws and customary morality.

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THE USE AND ABUSE OF PHENCYCLIDINE (PCP)

by

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Phencyclidine was developed in the late 1950's as an intravenous anesthetic by Parke, Davis, and Co. under the brand name Sernyl. Although it was found to be an effective anesthetic, complications from side effects led Parke, Davis and Co. to discontinue distribution for use with humans in 1967. It was discovered that many persons experienced extreme agitation, disorientation, and other psychotic like symptoms as they emerged from the anesthetic effects of phencyclidine.³ The drug is currently distributed by Bio-Ceutic Laboratories under the trade name Sernylan and is legally available only for veterinary use as an immobilizing agent and anesthetic in subhuman primates.⁴ The present study reviews the development of the illicit use and abuse of phencyclidine in Illinois, with special emphasis on those qualities of the drug which are most directly related to adverse effects on the health and social functioning of users.

ILLCIT USE

Illicit use of phencyclidine for its psychoactive properties first appeared in San Francisco and New York in 1966 and became visible in major metropolitan areas in the country in the summer of 1967. Interviews with providers of drug abuser services in Illinois indicate that phencyclidine was introduced in Chicago and Suburban Cook County during 1967. Almost two years elapsed before use of the drug was reported in central and southern Illinois. Initially phencyclidine was sold as the "Peace Pill" or "THC"; by 1971 it was being sold as "Dust" or "Angel Dust." The early use of phencyclidine was associated with that of other nonopiate drugs, particularly hallucinogens, and was rarely reported as a user's drug of choice. Between 1972 and 1974 evidence indicated greater availability and rising popularity of drugs containing phencyclidine⁵. By the end of 1975 reports of toxic reactions were increasing^{6,7,8,9,10,11}. Thus, phencyclidine progressed from a relatively obscure substance in 1967 to a drug whose use and abuse was a major concern within the drug abuse field and the public at large in 1977. By December of that year Dr. Robert DuPont, Director of the National Institute on Drug Abuse (NIDA), announced that NIDA placed top priority on investigations of phencyclidine.¹²

The chemical name for phencyclidine is 1- (1-phenylcyclohexyl) piperidine hydrochloride, from which is taken the acronym PCP. It is currently sold illicitly in Illinois under the names "Dust," "Angel Dust," "THC," "TIC," "TAC," and "Rocket Fuel." The continued sale of phencyclidine as "THC" is significant in that a large number of neophyte users ingest the drug in the belief that they are consuming tetrahydrocannabinol, the active ingredient in marijuana. Most of the phencyclidine currently available in Illinois is illicitly manufactured—a predictable development given the availability of ingredients and a relatively uncomplicated synthesis process. In most cases, the drug is in the form of a powder which is off-white to tan; occasionally it is reported to be in compressed tablet or liquid form. Intranasal ingestion ("snorting") is the most common mode of administration of the drug in Illinois. This is in contrast to other parts of the country where ingestion is almost exclusively by smoking. The most recent trend observed in Chicago has been toward ingestion by smoking mint, parsley, or marijuana leaves which have either been sprinkled with PCP or soaked in a phencyclidine solution and subsequently dried. Phencyclidine in this latter case is a dark leafy substance similar in appearance to dark brown marijuana. The implications of this shift in mode of ingestion will be discussed later. Phencyclidine currently sells for \$25 to \$100 per gram in Illinois with the average sale price being approximately \$75 per gram. Cost

to the user for a single ingestion depends on dosage but can generally be said to range from \$2 to \$10.

The role of impurities and adulterants in acute reactions to phencyclidine is still undetermined. A summary of the analysis of drug samples containing phencyclidine which were submitted to the drug analysis program of Alternatives, Inc. in Chicago is given in Table 1. Over half these samples contained impurities or additional psychoactive drugs. The presence of these impurities and adulterants is important for at least two reasons:

- 1) Five reports^{13,14,15,16,17} describe the presence and potentially toxic effects of impurities such as 1-piperidinocyclohexanecarbonitrile (POC), which are produced as a result of the substandard illicit synthesis of phencyclidine. The mode of action and extent to which these substances are responsible for or contribute to acute effects of phencyclidine ingestion are unknown despite the clinical significance of such information.
- 2) The presence of additional psychoactive drugs in illicit phencyclidine heightens the potential for synergistic effects that may be more toxic than any of the substances used alone. Strong warnings are not being issued against the dangers of mixing phencyclidine with alcohol, barbiturates, heroin, and other depressant drugs.¹⁴

PHYSIOLOGICAL EFFECTS

The physiological effects of phencyclidine, as with most psychoactive drugs, vary significantly depending on the dose. With low doses (below 5 mg), phencyclidine intoxication resembles alcohol intoxication with generalized numbness.⁴ High doses (over 10 mg), produce analgesia and anesthesia, muscle rigidity, jerky reflexes, and an increased probability of convulsions.¹³

Physical signs of acute phencyclidine intoxication may include flushing of the skin, hypersecretion (tearing, drooling, excessive sweating), loss of muscle tone, increased blood pressure and possible tachycardia, nystagmus (rapid lateral and vertical eye movement), dizziness, and double vision.^{4,18,19,20} Deaths resulting from phencyclidine ingestion usually involve one of two possible causes. The first is oral ingestion of very high doses (150-200 mg). The actual physiological mechanisms involved are still poorly understood, but death is often attributed to respiratory failure secondary to repeated seizure activity.¹⁴ The second cause of phencyclidine related deaths may be what is called "behavioral toxicity," i.e., faulty judgment during intoxication or inability to react, e.g., to extricate oneself from life threatening situations. Deaths in this latter category may be from drowning, falls, automobile accidents, and so forth. The Cook County Medical Examiner's Office reports four phencyclidine related deaths occurring between December, 1976 and June, 1977. The decedents ranged in age from 18 to 26, were all males, and all but one was white. Two of these deaths were from drowning while under the influence of phencyclidine and alcohol.²⁴

PSYCHOLOGICAL EFFECTS

Many phencyclidine users experience the drug as pleasurable; however, most have on occasion experienced adverse side effects. These usually take the form of transient anxiety reactions and disorientation, but reports of acute psychotic episodes are increasing. The toxic psychosis produced by phencyclidine resembles the symptoms of schizophrenia so closely that many admissions to hospitals have been initially misdiagnosed as functional rather than toxic psychoses.²⁵ Our review of the psychological reactions produced by phencyclidine reveals the following:

- The effect of phencyclidine, as with other drugs, is heavily influenced by the dose, the user's previous experience with the drug, the route of administration, and the setting in which the drug is used.
- The phencyclidine experience is highly reinforcing for some persons, as evidenced by their continued use of the drug after toxic reactions. The drug's dependency producing qualities among certain individuals are evidenced by an increasing number of persons whose primary drug of choice is phencyclidine.
- Most acute psychotic reactions are associated with high doses of the drug, neophyte users who do not know the kind of experience to expect, and oral or intranasal

Table 1. PCP DRUG ANALYSIS RESULTS - MAY, 1977 THRU FEBRUARY, 1978

	DRUG ANALYZED AS										
	PCP	PCP & Impurities	PCP & LSD	PCP & Co-caine	PCP & Parsley	PCP & Mint	PCP & Organic Substance	PCP & Methapyrilene	PCP & Tetracaine	PCP & Unknown	TOTAL
ANGEL DUST/DUST	7	7	3	1		1				1	20
THC/TIC/TAC	18	9	1					1			29
CANNABINOL	2								1		3
MARIJUANA					1		3				4
SPEARMINT LEAVES						1					1
"ROCKET FUEL"	1										1
LSD			1								1
COCAINE									1		1
UNKNOWN		2								2	4
PCP	5										5
TOTAL	33	18	5	1	1	2	3	1	2	3	69

DRUG SOLD AS

ingestion (rather than through smoking).^{14,21} The major presenting symptoms of acute reactions to phencyclidine include: disturbances in body image, depression, feelings of isolation, paranoia often accompanied with delusions, perceptual distortions, inability to talk, difficulty in movement, catatonic posturing, anxiety, and agitation.^{4,6,10,14,19,22} Such acute reactions may occur a number of days after phencyclidine ingestion and may require hospitalization for several weeks.

- It appears that phencyclidine is capable of exacerbating existing psychopathology in the user by bringing forth symptoms previously under control. Dr. Beverly Fauman reported that all users requiring hospitalization at Billings Hospital in Chicago for acute psychosis showed poor premorbid functioning, including poor work and school adjustment and inadequate development of interpersonal skills.²³ Severe anxiety reactions and confusional states can also occur following an initial toxic reaction of phencyclidine. These reactions, which users describe as "flashbacks," seem to be easily triggered through the subsequent use of stimulants, hallucinogens, or marihuana following the initial negative reaction to phencyclidine.
- Isolated reports of violent criminal acts committed under the influence of phencyclidine have appeared in the professional literature.¹² Media coverage of phencyclidine abuse in Illinois has grossly exaggerated the potential of phencyclidine to induce violence. None of the information received from the Chester Mental Health Center, the Forensic Psychiatry Program of the Illinois State Psychiatric Institute, the Psychiatric Institute of the Circuit Court of Cook County, or the Psychiatric Services of the Cook County Jail indicate cases where phencyclidine has been a primary causative or contributing factor in the commission of violent crimes.²⁶

INCIDENCE AND PREVALENCE

Viewing the public and media response to the use of phencyclidine during the last six months, one could get the impression that the use of this drug has suddenly begun and spread in epidemic proportions. Phencyclidine use in Illinois, to the contrary, has been increasing over the past several years. It is the public response that has been sudden, not the use of the drug. The major change, as mentioned earlier, is not the existence of phencyclidine on the illicit market, but the emergence of phencyclidine as primary drug of choice among users.

Given the hidden and illicit nature of phencyclidine use, monitoring of trends in usage must utilize such indirect indicators as drug-related deaths, emergency room visits, arrests, seizures, and so forth. Difficulties in collecting and analyzing such indicators for phencyclidine include the probable under-reporting of phencyclidine-related deaths (due to the role of deaths from behavioral toxicity), the under-reporting of the incidence of phencyclidine-induced psychosis (due to misdiagnosis), and the fact that phencyclidine is not directly identified on the reporting forms utilized by all State and Federal supported drug abuse treatment programs. Although such data collection is problematic, currently available data and information gathered through interviews by the authors does clearly document the increased abuse of phencyclidine in Illinois.

Phencyclidine is, at the present time, the most accessible drug other than alcohol and marihuana to drug users in metropolitan areas of the State. Although present in many of the smaller cities and rural areas, availability here tends to be much more sporadic. Southern Illinois is the only area of the state where it was reported that licit phencyclidine was being diverted to the illicit market, but the existence of this licit diversion could not be confirmed beyond one source. Most of the PCP in the state comes from illicit laboratories. The Drug Enforcement Administration has seized eleven of these in the last three years, mostly in the Chicago area.²⁷ All persons interviewed confirmed the increasing availability and prevalence of PCP during the past three years. Interviews with members of the Narcotics Division of the City of Chicago Police Department, the Cook County Sheriff's Office, various downstate police departments, the Metropolitan Enforcement Group, and the Drug Enforcement Administration indicated the increased priority placed on phencyclidine control by law enforcement offices in the State.

Both prevention and treatment programs in Chicago and suburban Cook County note an increase in requests for services related to phencyclidine. Currently, 18 percent of the drug information calls to Alternatives, Inc. are in regard to PCP.²⁸ Of the drug related calls to Metro-Help from July, 1976 to June, 1977, 6.2 percent concerned PCP. This increased to

9.5 percent and 10.2 percent for the months of August and September, respectively.²⁹ Increased PCP use is also reported in suburban Cook County,³⁰ and a number of polydrug treatment programs report a dramatic increase in PCP abuse. Northwest Youth Outreach (NYO) reports that 90 percent of their current clients used PCP at some point. NYO also reported that 16 or 18 of their drug emergencies in September 1977 involved acute reactions to PCP.³¹ Some areas of Illinois (Carbondale, DeKalb) note a decrease in the incidence of PCP among their treatment population following a number of acute PCP reactions,³² but other communities, such as Bloomington and Peoria, continue to report an increase of PCP abuse among client admissions.³³ Interviews with programs across the State indicate that most users can be characterized as under 21, white, and male. Although a sampling of participants of the Cook County State's Attorney's First Offender's Program indicated the presence of PCP use among black and Latino youth arrested for possession of marijuana,³⁴ nearly all of these persons had smoked rather than "snorted" the drug, which may account for the lower casualty rate from PCP use. The number of nonwhite youths using phencyclidine may also be grossly underestimated because most programs in black and Latino neighborhoods focus on opiate addiction and would not attract large numbers of minority users of phencyclidine into the treatment settings.

The number of persons in Illinois requiring emergency medical services for acute phencyclidine intoxication has increased dramatically. The National Institute on Drug Abuse and the Drug Enforcement Administration request regular reports from 22 hospital emergency rooms in the Chicago SMSA to ascertain trends in drug abuse patterns (DAWN System). Table 2 summarizes the incidence trend in PCP-related emergency room visits from April 1975 to April 1977 for these reporting hospitals.³⁵

Table 2. Quarterly Comparisons of PCP Related
Emergency Room Visits - Chicago SMSA

QUARTER	AVERAGE NO. MONTHLY VISITS
April - June 1975	4.7
April - June 1976	10.3
July - Sept 1975	3.7
July - Sept 1976	10.7
Oct - Dec 1975	5.3
Oct - Dec 1976	13.0
Jan - Mar 1976	9.0
Jan - Mar 1977	9.7

Analysis of the demographic characteristics of phencyclidine users treated in the emergency rooms of the aforementioned hospitals between January and April 1977 indicates the following:

- 94 percent of all phencyclidine cases were male;
- 75 percent were white, 12 percent black, and 12.7 percent other;
- 50 percent were aged 10 - 19, 41 percent were 20 - 29, and 6 percent age unknown.

Eleven of the 17 phencyclidine incidents entered in April were for the ingestion of phencyclidine alone; six were for phencyclidine in combination with another drug. Of the January to April 1977 phencyclidine admissions, 76 percent took the drug for its psychic effects, 18 percent ingested it as a suicide attempt/gesture, and 12 percent had taken the drug as part of an identifiable pattern of phencyclidine dependence.

Dr. Beverly Fauman of the Division of Emergency Medicine, University of Chicago Hospitals and Clinics, reports that Billings Hospital is currently admitting one patient per week with an acute psychotic reaction induced by PCP.

A statewide survey of emergency medical facilities currently being conducted by the Illinois Dangerous Drugs Commission will provide data to assess whether these trends in the Chicago SMSA are representative of other areas of the State.

Phencyclidine related deaths are also on the increase. The Cook County Medical Examiner's Office only reported one phencyclidine related death in 1976; three such deaths were recorded

in the first six months of 1977.

The increased seizure of illicit phencyclidine laboratories, the rise in admissions of phencyclidine users in drug abuse prevention and treatment programs, and the increase in phencyclidine related deaths and hospital admissions all point to the emergence of phencyclidine as a primary drug of choice among a significant number of illicit drug users in Illinois.

DISCUSSION OF IMPLICATIONS

In concluding this study, we would like to share our thoughts on the implications of the current emergence of phencyclidine abuse and share our speculations on the future of this new trend in illicit drug use.

Future of Phencyclidine Abuse

Based on our experience closely monitoring trends and cycles in illicit drug consumption, we would make the following predictions regarding the use and abuse of phencyclidine in Illinois:

- As the mode of administration of phencyclidine moves from intranasal ingestion to smoking, phencyclidine use will rise due to increased comfort among users with the method of ingestion and its inevitable association with smoking marijuana.
- The casualty rate for individual users from PCP will be greatest during the period of initiation to the drug. This casualty rate will go down as users learn to regulate dosage, anticipate and know the effect of PCP intoxication and control the setting the drug is used in.
- Public and media response will have a significant impact on the cycle of PCP prevalence. If handled in a factual, nonsensational manner, PCP users will proceed through the collective maturing out process that eventually occurred with the majority of LSD users. If PCP continues to be sensationalized, this maturing out process will be prolonged as the choice of PCP:
 - Will serve as an effective "alarm signal" (I need help) among troubled youth;
 - Will serve ego needs via risk taking, particularly in youth from low income disorganized families who will choose PCP not in despair, but because of the highly reported risks;
 - Will be an attractive choice to youth experiencing severe emotional problems, since much less self deprecating to be identified as having problems (hallucinations, disorientation) from drugs than at 16 years of age to be identified as "crazy."
- Both incidence and prevalence will eventually decrease due to the increased knowledge of risks, boredom with the experience, and a natural maturing out process for most users. This decrease in prevalence will also be accelerated whenever other psychoactive drugs become as available as phencyclidine at the same relatively low price. (It is our conviction that the high availability and low price are the two primary factors in the current popularity of phencyclidine.)
- As incidence and prevalence decrease, those users who cling to PCP as a drug of choice will present the greatest problems to treatment agencies. As PCP use decreases, this remaining group will bring a high incidence of psychiatric symptoms to the treatment setting and it will be very difficult to evaluate whether these are PCP induced or whether PCP has simply masked the severe psychiatric problems.

Phencyclidine and Future Trends in Drug Abuse

One of the major effects of phencyclidine abuse in Illinois (along with cocaine use) has been the increase in the intranasal ingestion of drugs. Not only has a new and toxic substance been added to the illicit market, but the method of ingestion of this drug may in itself increase the risks to the health of users. It is our fear that the intranasal ingestion of phencyclidine will popularize this method of ingestion for a variety of other psychoactive

substances.

It is also our belief that phencyclidine marks the reemergence of the wide use of exotic, hallucinogenic drugs. PCP is to the late 1970's what LSD was to the late 1960's or to put it another way: LSD was to STP, MDA, DMT, DET, and so forth what PCP is to ?,?,?. Part of this trend will emerge from the illicit market itself. As users become more experientially aware of the toxic effects of phencyclidine and begin to cease and discourage its use, we anticipate that illicit chemists and dealers will first use adulterants and new names to mask the identity of PCP, and second, begin manufacture of other hallucinogens, particularly the analogues of PCP. Phencyclidine has proven that there again exists a market for cheap mind altering chemicals. Given the profits currently being made from illicit sales of phencyclidine and the apparent appetite among users for this type of drug, we need to anticipate and prepare for the appearance of similar substances. Drug analysis will take on increasing importance in the monitoring and early identification of these new substances.

Phencyclidine and Future Drug Abuse Control Strategies

Strategies to control the availability and use of phencyclidine have immediate importance in that the social functioning and health of many users have been impaired by the toxic effects of the drug. Also, our ability to develop effective controls for phencyclidine is also important because it will set a precedent and become the model for how we will control a drug:

- Whose component materials are readily available and cheap;
- That can be illicitly manufactured with a minimal knowledge of chemistry;
- That can be easily concealed and transported; and
- Whose sale can produce high profits for illicit dealers in spite of its relatively low retail "street" price.

Our control responses will be particularly important if our prediction of the emergence of drugs similar to PCP is accurate, as we would anticipate that these drugs will have the same characteristics as those listed above.

Although it is too early to assess the extent to which the rescheduling of phencyclidine by the Food and Drug Administration will affect incidence and prevalence, it is essential that:

- Potential methods be examined through which the precursor chemicals of phencyclidine could be controlled to reduce the ease with which it can be illicitly manufactured;
- More effective early warning networks be developed to identify emerging patterns of drug use before such use becomes prevalent. The emergence of phencyclidine abuse was noted by law enforcement officials and drug abuse treatment personnel long before the public responded to this drug. What was missing was a mechanism through which this information could be relayed to policymakers in time to develop early control strategies to prevent the spread of the drug.

Phencyclidine and Drug Abuse Treatment Programming

There appear to be three immediate implications of phencyclidine abuse to treatment programming.

- The high incidence of psychiatric symptoms seen in phencyclidine abusers makes increased linkages between drug abuse programs and psychiatric services imperative. The emergence of phencyclidine abuse has created a greater need for psychiatric consultation services to drug abuse programs than any other type of drug abuse.
- The presence of psychiatric symptoms in phencyclidine abusers may also require the modification of program content in those drug abuse programs which are designed to handle clients functioning on a much higher level.
- Information must be disseminated to the psychiatric/mental health community

to alert these professionals to the possibility of misdiagnosis of phencyclidine psychosis as functional schizophrenia.

Phencyclidine and Drug Abuse Prevention Programming

Edward Brecher in his 1972 book *Licit and Illicit Drugs* included a chapter entitled, "How to Launch a Nationwide Drug Menace," in which he described the role of the popular media in contributing to the spread of glue sniffing. Media reports on PCP which began to appear in the latter half of 1977 and have continued in 1978 are similar in tone and content to these on glue sniffing which began in 1959 and may have the same effect. It is our contention that articles which have appeared in Illinois under such headlines as, "Angel Dust: The Truth About A Killer Drug," promote hysteria rather than understanding among parents and do little to deter the most susceptible adolescents. They may, in fact, attract a whole new subpopulation to experimentation with the drug. The return to scare tactics to deter persons from using phencyclidine has jeopardized our credibility in warning current and potential users about the risks involved. Our fear is that if we lose our credibility on PCP as we have on marihuana, the results will be much more disastrous. It may be time to call a moratorium on the sensationalized coverage of PCP by the media and redirect our energies toward dissemination of information on PCP within the adolescent peer network.

Most drug abuse prevention resources have been directed toward keeping persons from initiating illicit drug use. Although this approach should be continued, we also need to intensify efforts to intervene early among those adolescents and young adults who are at the experimental stage of phencyclidine use. Thus we should initially attempt to stop the individual from the abusive consumption of all psychoactive drugs; however, when this effort fails, the toxicity of phencyclidine warrants an attempt to shift the drug choice of the user to a less toxic substance. In essence, we consider the top priority of early intervention programs to be diversion of the user from those drugs which produce the highest risk to the health of the user and result in the greatest social costs to society. That such a drug choice can be influenced among persons who will continue to use some psychoactive substances is best illustrated by a poem sent to Alternatives, Inc. in Chicago by a client who had utilized the program's drug analysis services. The poem is presented here without further comment as a conclusion to this paper.

PCP

I scored some shit the other day
And man did it put me away
But I know the feeling, I know the score.
I'd been up there and back before.

Consistent as ever, right as rain,
Give it a chance and it'll eat your brain.
But do it right, don't do too much,
And the high's unreal, it's just enough.

But still and all, I'd like to know
Exactly what's in it though.
'Cause I've heard some things, bad things you see,
About a chemical they call PCP.

So I took some for analysis
And I inquired, "What is this?"
A guy looked at it and he told me
It was undoubtedly PCP.

I asked him how he could tell.
Was it by the texture, by the smell?
"What was it sold as," he then asked me,
"Was it sold to you as PCP?"

It's "tic" or "tac" or "dust" or "freeze"
Just let me know what's in it please.
I already know just what it does,
But what's the drug that gives the buzz? 158

He continued on by saying that
He'd done it all from pot to smack.
Addicted to barbs and mainlined speed,
But that the worst of the lot was PCP.

That the hospitals were filled with kids like me
Who couldn't handle PCP.
"Psychosis" he chanted, "Schizophrenia" or better,
That the drug won't allow you to get it together.

I had to stop him about this time
And remind him that I was doing fine.
And that he was no one to preach to me,
'Cause he got hooked too easily.

We left it at that and I left it there.
I'd know by Thursday, and that was fair.
But after I left, his words stayed with me...
"Psychosis" I thought, and PCP.

So I looked it up and to my surprise,
"Psychosis" it said, before my eyes,
In short, the synonym for PCP
Is none other than "insanity."

Well, Thursday came and I found out
Just what this stuff was all about.
It was PCP alright,
PCP with quite a bite.

To the upper end of the scale it went,
Must be about 95%.
And if all these horror tales are true,
There's only one thing left to do.

I'll stick to grass and hash and booze,
And pay \$4.50 for each lude.
No more "tic" or "tac" or "dust"
But getting high will stay a must.

FOOTNOTES

1. William L. White is currently a Dangerous Drugs Specialist in the Planning, Research, and Evaluation Section of the Illinois Dangerous Drugs Commission and Lecturer, Department of Psychology, Chicago State University.
2. Randall Webber is currently the Drug Information Coordinator of Alternatives, Inc., a Chicago based drug abuse prevention and treatment program.
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A SHORT SOCIOLOGY OF THE 1970'S, OR CLOSING CASEY'S CASE

BY

O Z WHITE

What proceeds from the early 1970's is an exercise in arrogance, because social scientists still attempting to sort out the meaning of the mid-1960's, and trying to build meaningful models into what has to be the most bizarre periods of U.S. history must fit. Two substances have recently become important, and will be briefly discussed.

PARAQUAT

In 1975, the Mexican government, with support and funding by the United States, began operating a marihuana eradication program that involved spraying the herbicide paraquat on marihuana fields. The United States sprayed paraquat for a time in certain jungles in Vietnam for defoliation, and it continues to be used to control weeds in grass seed crops, in pastures, in orchards, and in no-tillage corn. If the sprayed plants remain in the sun, paraquat is effective within hours on marihuana. Mexican farmers soon learned that if the contaminated plants were quickly harvested they would still be marketable. In mid-1977, the National Institute on Drug Abuse (NIDA) announced that large quantities of paraquat-infested marihuana had found its way into the American marihuana market, and that smoking this marihuana might lead to serious and irreversible lung damage.

Paraquat is in fact highly toxic and, in concentrated form, has been responsible for a few isolated, accidental deaths and suicides. The announcement caused mild panic among the marihuana-smoking public. Pharm-Chem laboratories advertised that they were available to test any plants suspected of being infected with paraquat. Home tests were described, using chemicals readily available. Take-home kits were sold in many local head shops. The dried, infected plant was described as being greenish yellow, with an unusually rough smoke. (These are the properties of large quantities of the best grade of uncontaminated Mexican marihuana.) All of these tests were later found to be completely undependable.

After paraquat was tested on laboratory animals, an announcement was made that if marihuana heavily laced with paraquat were smoked by an individual at the rate of five joints a day for a year, that person could suffer permanent lung fibrosis and functional impairment. The paraquat panic evaporated. As yet, no case of human poisoning from the smoking of contaminated marihuana has been confirmed in the United States.

The point of discussing paraquat is this: the Mexican government probably would not have sprayed their fields had they not been supported by the United States, and hence the U.S. was at least indirectly responsible. Secondly, ethics demanded that preliminary findings be announced immediately. Yet many pot smokers saw the whole affair as another "reefer madness" tactic, aimed at frightening people into refraining from using what they considered to be a harmless, benign, and pleasant drug.

PHENCYCLIDINE

Phencyclidine (PCP) is predominantly used by white, middle class adolescents. PCP users are described on the street as "moon walkers" because their perceptions are so distorted that their

movement is reminiscent of the astronauts on the moon. Phencyclidine was originally developed in the 1950's by Parke, Davis and Company. Anesthesiologists had high hopes for the drug because it dulled the central nervous system without inhibiting the reflex action. It was given the brand name Sernylan; tests on human subjects showed that it caused severe post-operative psychoses, especially in young or middle aged male patients, who described terrible nightmares and/or later displayed agitated and bizarre behavior.

Dr. David Smith has reported that PCP made its first illicit appearance on the street in 1965 on the west coast. Although it had been rejected for human use, it had proved to be an excellent animal tranquilizer, and hence was readily available to potential users. Originally it was ingested orally, but is now most commonly smoked or "snorted." In street form it is frequently misrepresented as a variety of other drugs. PCP can easily be made in underground laboratories by people with only a basic knowledge of chemistry and simple equipment; the basic ingredients have important industrial uses and cannot be easily controlled. According to street reports, there is seldom a "good trip." Often users become withdrawn, paranoid, and even violently schizoid.

PCP horror stories are plentiful. Young men are said to have murdered mothers and fathers, neighbors, strangers — without provocation. Sometimes people "stoned" on PCP are said to have disfigured or dismembered themselves. Many PCP-related deaths by drowning: one drowning was reported as having taken place in the shower. A central question is, "Why do people keep on taking it?" We know little about phencyclidine; even basic incidence and prevalence data are lacking. A general knowledge of the population-at-risk offers the following clues: (1) they are a post-Watergate group and post-NIDA gate group who are cynical concerning the establishment in general (2) they have heard many horror stories concerning drugs that later proved to be false or overstated (as was the case with paraquat); and/or, (3) they are the "limit dwellers" of our culture, who are excited by the exotic and the dangerous. At any rate, PCP is now a "plague whose time has come." (Dolan, 1978).

COCAINE

The Office of Drug Abuse Policy has reported in its 1978 report, Drug Use Patterns, Consequences and the Federal Response: A Policy Review that since 1974 there seems to have been a leveling off in the nonmedical use of all classes of drugs except marihuana, cocaine, and PCP. They do not anticipate that significant levels of PCP use will continue; marihuana and cocaine are a different story. According to the national household survey made by NIDA in 1978 the increase in cocaine use primarily reflects an increase in use among suburban young adults. The cost of cocaine is so high that only the well-to-do are able to use it on a regular basis.

The increase in cocaine use can be attributed to several factors: (1) it is a powerful and pleasurable stimulant; (2) it has a reputation for being non-addictive; (3) it greatly increases tactile sensibilities; and, (4) if "snorted" there is little danger of overdose.

Columbia supplies most of the United States' cocaine, and according to Time Magazine (Time, January 29, 1979, 23) about 2 million Americans pay 20 billion dollars annually for 66,000 pounds of it, with Columbia furnishing approximately 80 percent of the U.S. supply. One factor contributing to the abundance of supply is the ease with which it can be brought into the country. One pound is about the size of a standard paperback book. Regardless of the positive myths, cocaine is a highly dangerous drug with the potential for habituation.

MARIHUANA

Forty two million Americans are now spending around \$25 billion a year on marihuana, which has become the most widely accepted illegal activity since Prohibition. They currently consume about 13,000 pounds a day, which is estimated as being about four times the 1974 consumption. Its sale is the largest retail business in Florida. Because the cohorts using pot are getting older and replacing nonsmokers of pot, the addition of youths who try it every year means that pot smoking will be on the increase for some years to come.

It is obvious that other states will soon join the ten that have already acted to decriminalize marihuana and that there has been a decreasingly punitive response to the convicted adult

marihuana law violator, where such violations remain on the statute books. Research related to those states that have decriminalized marihuana indicates that there has been little, if any, increase in use; small users or possessors have been removed from the criminal justice system, enabling law and court officials to concentrate on other matters in their jurisdiction. The problem with relaxing marihuana laws is that all the data concerning the drug are not yet in. Indeed, studies continue concerning the long term effects. There is some evidence that even small amounts on a regular basis might be at least as dangerous as tobacco.

SOCIOLOGICAL CONSIDERATIONS

It might be that there has never been a culture which has not had some form of chemical escape mechanism - that has not used some kind of fermented beverage or some plant to make the pains and outrages of everyday life more bearable. In our culture, however, the regular use of drugs has gone far beyond functional use: Drug use has become a basic and integral feature of our culture.

In 1977, 1.4 billion prescriptions were written—the equivalent of seven prescriptions for every man, woman, and child in the country. The per capita consumption of alcohol was 2.65 gallons for every American fifteen years or older. An estimated 55 million Americans smoke cigarettes daily. (Drug Use Patterns, Consequences and the Federal Response: A Policy Review, 1978.)

Some segments of the population are undergoing larger increases in drug use than others. Some are sending social signals that their daily pains and outrages are unbearable and perhaps unique. A few of these will be briefly mentioned.

Women

Drug abuse appears to be on the increase among the female population. Females in high school and college and young adult women are smoking more cigarettes and marihuana, drinking more alcohol, and experimenting more. Possibly one of the factors involved is the sexual revolution: As women share more in the power structure they must also pay the price of increased stress in their lives. Along with this is the fact that women are now able to play roles with less stereotypical demands. In other words, they now have choices offered to them (you've come a long way, Baby!) that in other times were taboo for the "weaker sex." On the other hand, women are underrepresented in treatment programs, which raises the question of whether programs are geared to women's needs. Physicians prescribe more psychoactive drugs to women than they do to men. One reason given is that women are more likely to visit physicians for preventive treatment. Many leaders in the women's movement counter by saying that it is more likely that physicians, the majority of whom are not women, hold the stereotypical view of women as hysterical and neurotic, and prescribe accordingly.

Adolescents

The counterculture is almost gone. College campuses are now quiet. A majority of students either are in school to learn a skill so they can get a job or living in a world of fun, dates, and parties. There is a new conservatism and a new materialism—and this in the face of an uncertain political structure and economy. Many students (and some of their elders) are wondering if the education they are seeking will be worth it after all (Grant and Riesman, 1978). All this might mean that while substance abuse continues to be high, the motivations for abuse are now different. Thus, there may be a need for new treatment and prevention modalities.

The Elderly

The elderly take more prescribed drugs than any other group, and therefore have a greater opportunity for drug abuse/misuse. The elderly have many special problems for which chemical treatment can provide relief. There is a great need for contextual prevention activities to be targeted in this direction—toward nursing homes, nursing home personnel, physicians, the elderly themselves, and their families.

STATES IN WHICH MARIHUANA LAWS HAVE BEEN DECRIMINALIZED

<u>STATE</u>	<u>MAXIMUM FINE</u>	<u>MAXIMUM AMT. IN POSSESSION</u>
Alaska	\$100	Any amt. in private for personal use: 1 oz. in public
California	\$100	1 oz.
Colorado	\$100	1 oz.
Maine	\$200	Any amt. for personal use
Minnesota	\$100	1.5 oz.
Mississippi	\$250	1 oz.
New York	\$100	.75 oz.
North Carolina	\$100	1 oz.
Ohio	\$100	.5 oz.
Oregon	\$100	1 oz.

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THEMES IN CHEMICAL PROHIBITION

by

William L. White

The study of the historical themes in chemical prohibition movements can provide a helpful tool in understanding those institutionalized beliefs and myths which pose powerful barriers to any alteration in social policy on "drug abuse." This paper identifies the nature of those themes and presents the author's perceptions of how these inherited belief systems have severely limited our options for more enlightened and effective strategies for the social control of chemical intoxication.

Chemical intoxicants have been available to humans in almost all cultures since the beginning of time. Each culture through succeeding generations has assumed the task of defining and redefining which chemicals will be blessed, celebrated, or tolerated and which chemicals will be forbidden, legally prohibited, and condemned. In like manner each generation has confronted what the policy would be toward those persons who disobeyed the rules about the use of chemical intoxicants. The conversion of these policy definitions into law has often followed prohibitionist mass movements which sought through a variety of propaganda techniques to instill in the culture at large a certain set of beliefs and fears about the drugs in question. When these movements have been effective at generating statutory prohibition of specific drugs, this set of beliefs and feelings toward certain chemicals and persons who use them evolves over time to the point where they are seen as flowing from unchallengeable sources. At this stage, alternatives to the policies that reflect these prohibitionist themes are viewed as unthinkable.

This paper is based on the following premises:

1. Current strategies toward the use and abuse of mood-altering drugs continue to be based on a set of beliefs generated from the prohibitionist movements of the late 19th and early 20th centuries.
2. The cementing of these prohibitionist beliefs into the very social fabric of American culture is one of the primary barriers to changing an outmoded and nonfunctional social policy. The integration of these beliefs into our culture has been so complete that to question them is immediately experienced by the culture at large as an attack on the institutions which have proliferated these beliefs, e.g., our national leaders, the law, our educational and religious institutions, and the family.
3. The development of national policies toward mood altering drugs has not and cannot be intelligently addressed until we expose and modify the irrational fears and beliefs upon which current policies are based.

This paper will identify the nature of these inherited beliefs and describe the manner in which they have prevented development of a more enlightened and effective strategy for the social control of mood altering drug use in our society.

THE PROHIBITIONIST THEMES

A review of chemical prohibitionist literature reveals eight themes which appear to emerge from the tactics of most such movements. The tactics utilized to produce these themes are as follows:

1. The drug is associated with a hated subgroup of the society or a foreign enemy.

2. The drug is identified as solely responsible for many problems in the culture, i.e., crime, violence, insanity.
3. The survival of the culture is pictured as being dependent on the prohibition of the drug.
4. The concept of "controlled" usage is destroyed and replaced by a "domino theory" of chemical progression.
5. The drug is associated with the corruption of young children, particularly their sexual corruption.
6. Both the user and supplier of the drug are defined as fiends, always in search of new victims; usage of the drug is considered "contagious."
7. Policy options are presented as total prohibition or total access.
8. Anyone questioning any of the above assumptions is bitterly attacked and characterized as part of the problem that needs to be eliminated.

Each of the above will be reviewed looking at their historical development and their present status.

The Drug is Associated With a Hated Subgroup of the Society or a Foreign Enemy

The association of particular drugs with hated minority groups and foreign enemies has a long and colorful history in the United States. The association of opium with the Chinese, of cocaine with Blacks, of alcohol with urban Catholic immigrants, of heroin with urban immigrants, of Latinos with marihuana, the claim that a myriad of foreign enemies were using these drugs against the U.S., and the image of drug crazed bohemians such as Ludlow, Baudelaire, and DeQuincy all were integral to the propaganda that generated the prohibitionist policies on each of these drugs.

San Francisco passed the first narcotics law in the United States in 1875 for the purpose of suppressing opium smoking. There is little doubt that this law was aimed specifically at the Chinese and reflected more an attempt to control the Chinese as an economic group than it did a concern about the drug opium. The "Chinese Question" dominated California politics in the 1870's. The period is marked by intense racial and class conflict. Racial riots occurred in numerous West Coast cities that resulted in the killing and lynching of Chinese and the burning of Chinese quarters. The California Workingman's Party was organized under the cry "The Chinese must go!" California representatives with the support of their southern counterparts pushed through Congress the Chinese Exclusion Act of 1882 which suspended immigration of Chinese workingmen into the U.S. for ten years. It is doubtful given this background that the 1875 ordinance in San Francisco was aimed at protecting the health and welfare of the Chinese people.^{1, 2, 3 and 4}

Although the practice of smoking opium in the early 1870's was unquestionably limited to the Chinese, the continued association between opium and the Chinese into the 1900's as part of the drive for national legislation to prohibit opium is unfounded. During this period opium had become a primary ingredient in over the counter medications sold as a cure-all for an unending list of ailments. Terry and Pellens in their classic work The Opium Problem summarize all available surveys on opium use and conclude that most of users were white, female, middle-aged, and to be found among the educated and most honored members of society.⁵ Despite this evidence, the association between opium and the Chinese continued. Dr. Hamilton Wright, M.D., a State Department Official, referred to many as the father of American narcotics laws was before Congress in 1910 propounding the recurring theme of miscegenation with the following comments: "One of the most unfortunate phases of smoking opium in this country is the large number of women who have become involved and were living as common law wives or cohabitating with Chinese in the Chinatowns of our various cities."⁶ As with prohibitions which would follow, people's attitudes toward a specific drug (opium) became inseparable from their feelings about that group of people (Chinese) with which the drug's use was associated.

The association between cocaine and Blacks during the late 1800's and early 1900's was both

direct and vicious. Hamilton Wright was again on the scene in 1910 giving Congress the following warning about cocaine: "It has been authoritatively stated that cocaine is often the direct incentive to the crime of rape by the Negroes of the South and other sections of the country."⁷ The following additional example comes from an article by Edward Huntington Williams, M.D., in The Medical Record in 1914:

Once the Negro has reached the stage of being a 'dope taker' (dope here referring to cocaine). . . he is a constant menace to his community until he is eliminated. . . Sexual desires are increased and perverted, peaceful Negroes become quarrelsome, and timid Negroes develop a degree of 'Dutch courage' that is sometimes almost incredible. . . In the language of the police officer, 'The cocaine nigger is sure hard to kill' - a fact that has been demonstrated so often that many of these officers in the South have increased the caliber of their guns for the express purpose of 'stopping' the cocaine fiend when he runs amuck.⁸

A review of more popular reading of the day would have revealed the following statement in a 1914 Literary Digest article: "Under its (cocaine) influence are most of the daring crimes committed. . . Most of the attacks upon white women of the South are the direct result of a cocaine crazed Negro brain."⁹ Or consider the following attributes of cocaine as reported again by Edward Huntington Williams, M.D. in an article in the New York Times:

The list of dangerous effects produced by cocaine. . . is certainly long enough. But there is another, and a most important one, this is a temporary steadying of the nervous and muscular system, so as to increase, rather than interfere with good marksmanship. . . the record of the 'cocaine nigger' near Asheville, who dropped five men dead in their tracks, using only one cartridge for each, offers evidence that is sufficiently convincing.¹⁰

As if these racial associations were not enough, a New York Times article on the cocaine "menace" during this period tapped the anti-Semitic constituency with the following: ". . . there is little doubt that every Jew Peddler in the South carries the stuff." The constant racial associations with cocaine may account for the fact that, between 1887 and 1914, laws were passed in 46 States regulating cocaine whereas only 29 States had enacted such laws to regulate the opiates.¹² Perhaps an added irony is a 1908 report by the Federal Government indicating more than 40 brands of soft drinks which contained cocaine.¹³

Moving along to the next chemical which had long been singled out as a prohibitionist target, we see Congressman Hobson in 1914 in defense of his resolution for an alcohol prohibition amendment using a tactic that had been working well to influence the prohibition of cocaine and opium:

Liquor will actually make a brute out of a Negro, causing him to commit unnatural crimes. The effect is the same on the white man, though the white man being further evolved it takes a longer time to reduce him to the same level.¹⁴

Liquor, as the story went, encouraged the southern Negro to "loose his libido on white women, incited. . . by the nudes on the labels of whiskey bottles." At home and abroad, prohibitionist missionaries began spreading the word that the poor and "colored people" of the earth were dangerous when drunk. As we approached World War I, however, a much better target was found. Pabst and Busch were German. Liquor stopped soldiers from shooting straight. Grain for alcohol took food away from starving allies. Liquor was unpatriotic. By the time prohibition of alcohol was implemented in 1919, alcohol was strongly associated with the German war effort, Catholicism, and the growing urban environment with its high percentage of foreign immigrants.¹⁵ The entire prohibition drama was to a great extent a symbolic issue of power - a question of whether the United States would be ruled from the traditions of rural Protestant America or by the growing industrial cities with their heavy immigrant Catholic influences.

The next major prohibition effort occurred in the 1930's as momentum was building to outlaw the use of marihuana. Harry Anslinger, in testifying in support of the Marijuana Tax Act of 1937, presented a letter from a Colorado Newspaper editor, an excerpt of which follows:

I wish I could show you what a small marijuana cigarette can do to one of our degenerate Spanish speaking residents. That's why our problem is so great; the greatest percentage of our population is composed of Spanish-speaking persons, most of whom are low mentality because of social and racial conditions. ¹⁶

The association between marihuana and Latinos continued throughout the 1930's, and it is doubtful that any of the legislators in 1937 could have even conceived of the possibility of large numbers of their own grandchildren and great grandchildren using marihuana and going to jail under a legal precedent they set.

An added twist to this overall theme was the proposition by Harry Anslinger, Commissioner of the Bureau of Narcotics, that Communist China was growing and producing large quantities of opium and heroin for export to the free world, the United States in particular. This distribution of narcotics within the United States was part of the "Yellow Peril" which threatened to weaken America for the kill.¹⁷ Although Anslinger is most famous for this conspiracy theory of drug abuse, it was by no means original with him. A number of articles in the New York Times during 1918 charged German agents with smuggling drugs to American Army bases and public schools. The following excerpt from the December 18 issue is typical of the tone:

Until well known German brands of toothpaste and patent medicines. . . naturally for export only. . . habit forming drugs were to be introduced; at first a little, then more, as the habit grew on the non-German victim and his system craved ever increasing quantities. . . in a few years Germany would have fallen upon a world which cried for its German toothpaste and soothing syrup. . . a world of "cokeys" and "hop fiends" which would have been absolutely helpless when a German embargo shut off the supply of its pet poison. ¹⁸

The reporting of the drug abuse "epidemic" of the 1960's and early 1970's and the demands for increasing prohibitions was only qualitatively different from these earlier campaigns with the association between "drugs" and radical left politics, social violence, defiance of respected values, etc. The theme was the same only the hated subgroups and the nature of the foreign enemy had changed.

The above material represents only a small part of the information available to document the prohibitionist's association of a drug with either a hated minority group or a foreign enemy. Similar data can be found when one looks at the short lived movements to prohibit tobacco and coffee.

Richard Hostadter's comment that "Reformers who begin with the determination to stamp out sin usually end by stamping out sinners"¹⁹ seems applicable here. It is open to historical interpretation which the prohibitionists were more interested in prohibiting, cocaine, opium, and alcohol or the existence of blacks, Chinese, and Latinos in the United States. Although a racial theory of the development of drug control policies would be much too simplistic, it is unquestionable that the racial and "foreign conspiracy" associations with different drugs were instrumental in creating the emotional environment from which early prohibitionist laws sprang. There is also little question that modern versions of this theme continue to touch of primitive and powerful fears about the welfare of our country, our institutions, and most importantly the welfare of our children.

The Drug is Identified as Solely Responsible for Many Problems in the Culture, i.e., Crime, Violence, Insanity.

The attributing of crimes of violence, sexual assault, insanity, moral decay, etc. have been an integral part of efforts to prohibit the currently illicit drugs. A key element in this theme is the arbitrary designation of "good" and "evil" drugs with evil drugs possessing powers that can overwhelm all efforts at human control. "The Devil made him do it" is changed to "the drug made him do it." This aspect of prohibitionist philosophy is so often reported, there is no need to belabor the point. A few illustrative examples will be outlined.

A prohibitionist movement, which was short lived but quite capable of attributing the evils of the world and the devastation of human beings to its particular despised chemical, gave wide circulation to a statement by Sir Clifford Allbut, M.D. and Walter Dixon, M.D. which appeared in A System of Medicine in 1909. At the time Sir Clifford was a professor of internal medicine at the University of Cambridge in England and Dr. Dixon was a professor of pharmacology at Kings College in London. An excerpt follows:

The sufferer is tremulous, and loses his self-command; he is subject to fits of agitation and depression; he loses his color and has a haggard appearance. The appetite falls off, and symptoms of gastric catarrh may be manifested. The heart also suffers; it palpitates, or it intermits. As with other such agents, a renewed dose of the poison gives temporary relief, but at the cost of future misery. ²⁰

The substance referred to is coffee, and the statement was circulated for a short time in an attempt to garner support for the prohibition of coffee.

The anti-tobacco forces were much better organized (with cigarettes still illegal in 14 states in 1921)²¹, and their pronouncements received wide distribution. The following statements are representative of those used by the anti-tobacco forces from 1920 to 1935, Louis Lewin, an eminent authority on pharmacology, wrote the following in 1924 which received wide distribution:

The juvenile female flower of the nation, the 'Emancipata femans vulgaris' (Lewin's term for the feminists of his day,) who should bear fruit in time to come. . . frequently fails to do so because the foolish consumption of cigarettes has impregnated the sexual organs with smoke and nicotine and keeps them in a state of irritation and inflammation. ²²

A 1930 issue of the National Advocate reported a doctor's opinion that "Sixty percent of all babies born of mothers who are habitual smokers die before they are two years old."²³ An anti-tobacco publication of 1931 included the following:

Fifty percent of our insanity is inherited from parents who were users of tobacco; sometimes the victim is a smoker himself, which hastens it on. Thirty percent of insanity cases are caused directly from cigarette smoking and the use of tobacco. . . ²⁴

Several anti-tobacco publications of the 1920's quoted New York City Magistrate to illustrate the crime producing properties of tobacco:

Ninety-nine out of a hundred boys between the ages of 10 and 17 who come before me charged with a crime have their fingers disfigured by yellow cigarette stains. ^{25,26}

Tobacco was also reported to be the hidden cause of increased suicides in the early 1900's:

The publisher of this book. . . has had two men in his employ who used cigarettes. . . They both committed suicide. They became so despondent and so sick of a life as they were living that they murdered themselves. This is the end to which many cigarette smokers come. ²⁷

If we look at the few years preceding passage of the Marijuana Tax Act in 1937, we see equally vociferous statements on the evils and destructiveness of marihuana. An advertisement distributed by the Federal Bureau of Narcotics in 1935 read as follows:

Beware! Young and Old -- People in All Walks of Life! This (picture of a marijuana cigarette) may be handed to you by the friendly stranger. It contains the Killer Drug 'Marijuana' -- a powerful narcotic in which lurks Murder! Insanity! Death! ²⁸

In 1936 the International Narcotic Education Association in conjunction with the Federal Narcotics Bureau published Marihuana or Indian Hemp and Its Preparations which included statements such as:

Prolonged use of marihuana frequently develops a delirious rage which. . . sometimes leads to high crimes such as assault and murder. Hence marihuana has been called the 'killer drug.' The habitual use of this narcotic poison always causes a very marked deterioration and sometimes produces insanity. Hence marihuana is frequently called 'loco weed.' . . .Marihuana often gives man the lust to kill unreasonably without motive. Many cases of assault, rape, robbery, and murder are traced to the use of marihuana. 29

Such reports were not limited to the Federal Bureau of Narcotics. An article in the 1936 March issue of Scientific American included the following:

Marijuana produces a wide variety of symptoms in the user, including hilarity, swooning, sexual excitement. Combined with intoxicants, it often makes the smoker vicious, with a desire to fight and kill.³⁰

Up until the end of prohibition of alcohol in 1933, there was a great deal of overlap between those participating in various prohibitionist movements. All of these persons and groups shared an anti-hedonistic ethic which provided a united front politically in their efforts to legally prohibit all pleasure-producing chemicals as well as other pleasurable nonchemical pastimes of humans, i.e., dancing, jazz music, gambling, etc. The years following the end of alcohol prohibition saw the beginning distinctions between good drugs and evil drugs. Those drugs within the experience of the majority of Americans were considered good; those drugs which tended to be used by minority and fringe groups tended to be defined as evil. Thus alcohol, nicotine, and caffeine (coffee) began to become increasingly integrated into the very fabric of American life, whereas cocaine, opium, heroin, and subsequently marihuana and the hallucinogens continued to be defined as evil — physically, emotionally, and morally devastating to the individual and unquestionably destructive to the culture. This definition of certain chemicals as innately good or evil was to germinate from 1933 into the 1960's where we would witness a giant eruption of this issue as adult America was forced to attempt to articulate to their own children the culturally inherited distinction between good drugs (alcohol) and evil drugs (marihuana, etc.).

Survival of the Culture is Pictured as Dependent on Prohibition or Continued Prohibition of the Drug

Implicit in the attribution of society's problems to the use of particular chemicals is the assumption and implication that these problems will disappear as prohibition becomes effective. The elimination of the drug and its use is thus characterized as crucial for the survival of the culture. Such claims have been characteristic of nearly all prohibitionist movements. For example, the following editorial warning appeared in the New York Times on June 28, 1884:

The decadence of Spain began when the Spaniards adopted cigarettes, and if this pernicious practice obtains among adult Americans the Ruin of the Republic is at hand. 31

Purley Baker writing in the Anti-Saloon League Yearbook of 1914 implores: "If our Republic is to be saved, the liquor traffic must be destroyed,"³² and Henry Ford speaking in support of alcohol prohibition stated the following in 1928:

If the law were changed, we'd have to shut down our plants. Everything in the United States is keyed up to a new pace which started with Prohibition. The speed at which we run our motor cars, operate our intricate machinery, and generally live, would be impossible with liquor. No, there is no chance even for modification. 33

Such pronouncements on the presently illicit drugs have been echoed through the past decades perhaps culminating in the announcement by then President Richard M. Nixon in June, 1971. that "The problem has assumed the dimensions of a national emergency. . .America's Public Enemy No. 1 is drug abuse."³⁴

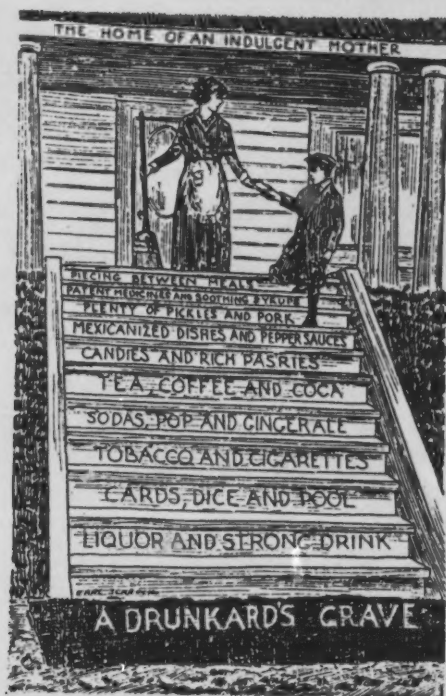
Concept of "Controlled" Usage is Destroyed and Replaced by a "Domino Theory" of Chemical Progression

The history of prohibitionist pronouncements is replete with examples which propose a "domino

theory" of chemical usage. Such a theory holds that the use of a particular drug (usually the one presently targeted for prohibition) inevitably and with rare exception leads to the use of other drugs (usually drugs already prohibited or drugs already defined as evil). For example, the publication in 1798 of Essays, Literary, Moral and Philosophical by Benjamin Rush includes the following comments from an anti-tobacco essay: "A desire of course is excited for strong drink, (by smoking tobacco) and these (cigarettes) when taken between meals soon lead to intemperance and drunkenness."³⁵ The following is from a 1912 article in Century magazine:

The relation of tobacco, especially in the form of cigarettes, and alcohol and opium is a close one. . .Morphine is the legitimate consequence of alcohol, and alcohol is the legitimate consequence of tobacco. Cigarettes, drink, opium is the logical and regular series. ³⁶

One of the most dramatic and all-inclusive examples of this "domino theory" can be seen in the following illustration from The Temperance Program (1915) of Evangelist Thos. F. Hubbard.³⁷



STARTING HER SON TOWARD A DRUNKARD'S GRAVE

The contention that alcohol abuse was the basis for morphinism was not uncommon in the late 1800's, and more recently the mystical connection between marihuana and heroin has been central to the rationale for continued prohibition of marihuana.

The destruction of the concept of controlled drug usage implies that everyone who ever uses heroin will be a "dope fiend," everyone who drinks will be an alcoholic, etc. In general this strategy equates the use and abuse of drugs and implies that it is impossible to use the particular drug or drugs in question without physical, mental, and moral deterioration. Such a view holds that there are powers within the drug over which no one can exert control. The extreme absurdity of such a view seems apparent when one considers the vast majority of persons who use alcohol in this country with minimal or no dysfunctional consequences and the numbers of users of illicit drugs who do not suffer physical deterioration, who do not progress to

compulsive drug usage, who do continue to work, raise children, and maintain the usually expected social responsibilities. The idea that there are overwhelming powers within drugs is probably nowhere better illustrated than in a statement in Marc Olden's 1973 book, Cocaine, in which he states: "It's possible to get a habit just from handling the drug."³⁸ The continued belief in this domino theory of chemical progression and its implications for current policies is perhaps well illustrated by a 1974 survey in which 39 percent of non-marihuana users in the sample cited "marijuana use leads to harder drugs" as the primary reason for their opposition to legalization of marihuana.³⁹

The Drug Is Associated With the Moral Corruption of the Young, Particularly Their Sexual Corruption

Chemicals have long been inextricably linked in prohibitionist literature with the sexual corruption of young people. Joan Fran Rauch attacked chocolate in 1624 as a violent inflamer of passions,⁴⁰ tobacco was linked with sexual immorality in the 1850's,⁴¹ and the association between opium and the corruption of young women began in the 1880's with the publication in 1882 of H.H. Kane's Opium Smoking in America and China in which Kane states:

Many females are so much excited sexually by the smoking of opium during the first few weeks that old smokers with the sole object of ruining them have taught them how to smoke. Many innocent and over-curious girls have been thus seduced.⁴²

It has already been outlined how cocaine was extensively associated with sexual attacks on white women by black men during the early 1900's. During the alcohol prohibitionist movement era alcohol was reported to create sexual excess within and outside of marriage, and alcohol was subtly webbed through stories of Jews "buying up the virtue of Gentile virgins" or Roman Catholic priests "seducing Protestant girls in nunneries."⁴³ In an expose of the white slavery traffic written in the 1930's, we find the arch villain (the alleged pimp) responding to a question on how he procures women for the life of prostitution:

I secured a large number of girls from high schools, by doping them with my weed.⁴⁴

There is an added irony on the above theme that occurs as one reads through the prohibitionist literature from different periods. Nearly every drug that has been singled out for prohibition (opium, cocaine, alcohol, marihuana) has been said to provoke uncontrolled sexual desire and provoke sexual attacks upon defenseless women while at the same time the drug is said to produce impotence.

The media coverage of the numerous lifestyle changes of the 1960's constantly associated drugs with communal living, cohabitation, etc. Pictures of teenage girls allegedly prostituting to "support their habits" blazed across the television screen did nothing but update this ageold association between chemicals and sexual corruption. The inflaming of this fear about the fate of our own children made it difficult if not impossible for most Americans to take a careful and reasoned look at our drug policies.

Both User and Supplier Are Defined as Fiends, Always in Search of New Victims; Usage of the Drug is Considered "Contagious"

The prohibition propaganda which has surrounded the presently illicit drugs represents a blatant manipulation of the symbols of evil that would do credit to Jonathan Edwards. Nothing can so excite an adult population as can anything which appears to threaten their own children. Since the Harrison Act of 1914, the user and the seller of illicit drugs have both been characterized as evil, criminal, insane, and always in search of new victims, the victims are characterized as young children. Drug usage is characterized as "contagious;" its increase (real or imagined) is characterized as an "epidemic." Efforts to reduce drug usage are referred to as the "war" on or "battle" against drug abuse. Persons who sell are called "pushers" in spite of increasing evidence that most persons get drugs, particularly their first drug, from friends and not some arch villain who seduced them on a street corner.

Policy Options are Presented as Total Prohibition or Total Access

Prohibitionists have always characterized themselves as being in a moral/religious battle

against evil. This quality of the prohibitionist movements eliminated the option of compromise. The choice as they saw and presented it was total prohibition or total access to the hated drugs. It was not that other methods of controlling use did not exist or would not work; it was the idea that all usage was sinful and must be stopped. Like an ongoing morality play, this same issue gets played out repeatedly today with a new cast of characters. As bills are introduced to lower criminal penalties for various illicit drugs, one can anticipate any number of legislators standing to attack reduced penalties as an invitation for use and a first step toward legalization of drug X.

Anyone Questioning Any of the Above Assumptions is Bitterly Attacked and Characterized as Part of the Problem That Needs to be Eliminated

A reading of any number of works which trace the development and evolution of our narcotics policy, all demonstrate the personal hazards in challenging those policies. To attack or challenge existing policies has opened one up for charges ranging from a lack of patriotism to charges that the critic is himself part of the international drug conspiracy. To most persons, confronting the issues surrounding the inadequacies of existing drug policy is simply not worth the challenges to their own personal integrity.

THE PROHIBITIONIST LEGACY

The prohibitionist themes as outlined above have left a burdensome legacy that severely limits any attempt to more adequately and rationally address the control of chemical mood alteration in our society. Consider the following:

1. American policies continue to be organized around the notion of "good and bad" drugs, although good and bad may be couched in terms like "safe," "dangerous," "schedule I," "schedule II," and so forth. Our preoccupation with chemistry has prevented us from focusing on the excesses of the behavior. The question is not how do we prevent people from using "bad" drugs - we cannot. The question is how to provide social structures and rituals which decrease the excesses of usage of all drugs and the subsequent high personal and social costs of such extremes.
2. Our prohibitionist legacy has left us without a commonly understood language to address the excessive use of all mood altering drugs. We are left instead with an emotionally loaded language that continues to channel our thinking into good and bad drugs. A person receiving opiates under a doctor's care is a "patient," a person using opiates without medical supervision is a "drug addict," a person receiving amphetamines from a doctor is under "medical treatment," a person using the same amount of amphetamines without the doctor is suffering from "drug abuse," a physician prescribing drugs is a "healer," a nonphysician distributing the same drugs is a "pusher." Chemicals received from doctors are "medicine," the same chemicals received on the street are "dope." A person abusing illicit drugs is an addict, a junkie, a hype, a freak, an acidhead, a pothead, etc. A person abusing nicotine is an _____ (no word in language), a person abusing caffeine is an _____ (no word in language); a person abusing alcohol is suffering from the "disease" of alcoholism. To be using drugs is to be "dirty," to be free of drugs is to be "clean."
3. The good and bad drug dichotomy has also resulted in an artificial dichotomy in the prevention and treatment field. There is an alcoholism prevention/treatment field and a drug (primarily illicit) drug abuse prevention/treatment field, with neither field addressing in any significant manner the treatment of excessive use of prescription drugs, over-the-counter medication, tobacco, etc. or addressing adequately the now large group of clients who are abusing both alcohol and other drugs either concurrently or sequentially.
4. The anti-hedonistic and abstinence stance of the prohibitionists has also influenced our treatment approaches. If one looked at the amount of energy in the 1960's which went into explaining that methadone did not produce euphoria, you would think a cardinal tenet of treatment was that it could not be pleasurable. Treatment has also been consistently defined as "good" only to the point that it produced total abstinence from all psychoactive drugs—a policy which continues to define methadone maintenance clients as second-class citizens on the basis of a criterion that the majority of Americans could not meet.

5. Our preoccupation with "bad/illicit" drugs continues to detract our attention from the overall extent of prescribed psychoactive drug use and the increasing practice of self medication in our culture. If one could step into the future and look back on the major developments in chemical mood alteration, the use of illicit drugs would appear insignificant to the increased usage of approved over the counter and prescribed mood altering drugs.
6. The rigid moral principle of abstinence, the basis of prohibitionist thought, has spawned an equally rigid anti-prohibitionist movement. Where the former saw drugs as totally evil, the latter does not address the real dangers in excessive drug usage. Where the prohibitionists have demonized the drugs, the users, and the sellers; the repeal advocates and reformists have often demonized the laws and those who represent and enforce them. Where the prohibitionists have implied that many of society's problems will disappear with effective prohibition; the advocates of repeal imply that most, if not all, of the "drug problem" will disappear with legalization. Where the prohibitionists see the spread of drug use as part of a conspiracy of a foreign enemy; those for repeal tend to see the spread of drug control laws as the product of an internal conspiracy. Both view our present situation in simplistic terms which totally obliterate the extreme complexity of the issues surrounding the control of chemical intoxication within a heterogeneous and rapidly changing culture. There is grave danger in this either/or polarization that is beginning to take shape. Although it is important to acknowledge that our past moral inflexibility has prevented us from accepting potentially effective strategies which could be construed as sanctioning illicit drug use, we must equally acknowledge that the abdication of all controls would not improve our current situation.
7. The continued association between crime, insanity, sexual corruption, miscegenation, evil conspiracies, etc. and illicit drugs makes rationally proposing policy alternatives politically risky for anyone in a position to have those alternatives heard.

CONCLUSION

A powerful system of prohibitionist beliefs and fears about the currently illicit drugs has been woven into the very fabric of our culture. It is this system of beliefs and moral premises, much more so than our technical capabilities, which severely restrict the development of more enlightened social policies on the excessive use of mood altering drugs.

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HISTORICAL/CULTURAL BELIEFS ABOUT SUBSTANCES

1. During my grandparents generation drugs were considered:

Alcohol was considered:

Habits were considered:

Positive

Negative

2. What my mother and father said about drugs:
3. In my high school drugs and alcohol were considered:
4. What I remember most about habits is (positive and negative)
5. In my hometown, people who use and abuse substances are described as:
6. In the place I work, drugs and alcohol use and abuse are considered:
7. Generally, my attitude toward drugs/alcohol have become:

NOTE: ALL QUESTIONS ARE TO BE VIEWED FROM THE HISTORICAL, SOCIAL, CULTURAL EVALUATION PERSPECTIVE.

MODULE IV: SUBSTANCE ACTIONS

PERSPECTIVE

The purpose of this module is to provide a description of psychoactive drugs in a pharmacological context. Following a discussion of general drug characteristics and effects on human behavior, and a definition of pharmacological concepts, specific actions are presented for each major drug classification.

CONTENTS

Overview of Module and Introduction to Pharmacology	(20 Minutes)
Lecture/Discussion: Origin of Drugs and Drug Effects	(30 Minutes)
Lecture/Discussion: Drug effects and the Major Impact On Human Behavior	(40 Minutes)
Lecture/Discussion: Definition of Terms	(50 Minutes)
Lecture/Discussion: Classification of Drugs	(20 Minutes)
Lecture/Discussion: Narcotic Analgesic	(20 Minutes)
Lecture/Discussion: General Depressants	(20 Minutes)
Lecture/Discussion: Stimulants	(20 Minutes)
Lecture/Discussion: Hallucinogens	(30 Minutes)
Lecture/Discussion: Cannabis	(30 Minutes)
Lecture/Discussion: Summary of Module IV	(10 Minutes)

Total time: 4 Hours 50 Minutes

OBJECTIVES

Using the information presented in Module IV as criteria at the end of this module and without the aid of notes participants will be able to:

1. Identify various substances according to their classification as narcotic analgesic, general depressant, stimulant, hallucinogen, or cannabis
2. Identify the term "tolerance"
3. Identify at least one drug effect on human perception
4. Identify at least one drug effect in psychomotor functioning
5. Identify at least two variables which account for drug-related risk
6. Identify at least one physiological effect of opioids
7. Identify at least one psychological effect of cannabis

SUBSTANCE ACTIONS

by

Ronald K. Siegel, Ph.D.

PERSPECTIVE

Many people subscribe to a traditional belief that drugs are elixirs which magically transform people's behavior. At one extreme, some think that minutes or hours after taking a particular drug, the user becomes an assaultive, combative, homicidal maniac who is no longer in control of his behavior. Such a view was held by the Russian author Leo Tolstoy who wrote in 1890 that "The cause of the world-wide consumption of hashish, opium, wine, and tobacco lies not in the taste, nor in any pleasure, recreation, or mirth they afford, but simply in man's need to hide from himself the demands of conscience." Tolstoy argued that men "stupefy" themselves with drugs and then go on to commit actions contrary to conscience such as robbery, rape, and murder. At the other extreme, some believe that minutes or hours after taking the same drug, the user becomes a fully self actualized creative artistic genius capable of wondrous feats and thoughts. French poet Charles Baudelaire certainly felt romantically inspired by hashish, as did English writer De Quincey by opium, and American poet Allen Ginsberg by hallucinogens. But neither extremist view is fully correct. Drugs do not work in any magical way despite the continuing presence of these two belief systems.

The principle of magical drug effects can be illustrated by the most common group drug experience in the United States today--the cocktail party. Consider the last such party you may have attended or observed. There, in the same setting, with the same set or expectation of having a good time, individuals consume approximately equal amounts of the same drug (alcohol) over relatively the same period of time. Yet the effects vary considerably. Some people become boisterous and aggressive, others become passive, lethargic, and sleepy. Still others become silly, amorous, or even lascivious. This clearly illustrates that there is nothing magical about the way in which alcohol works. It acts in combination with the basic pharmacology of the drug and the personality of the user. The effects are not uniform. (This example can be used as a basis for group discussion.)

In order to avoid these belief systems about magical drugs, it is important to keep in mind a specification principle. Whenever we are talking about drugs, reading about drugs, or evaluating drug information, we must specify the exact drug we are referring to and what type of user is taking that drug. Information about the drug should be specific with respect to preparation, purity, dosage, route of administration, time course of action, absorption and distribution in the body, rate of metabolism, rate of inactivation, and rate of elimination, among other factors. Information about the user should be specific with respect to personality, general state of health, past and present medications and drugs used, and expectations and attitudes about the specific drug, among others. Such drug and behavioral variables can be further modified by environmental variables such as set and setting (the organism's state of readiness for the activity and the surrounding circumstances of the activity). The resultant myriad of drug induced changes in behavior cannot be fully understood unless all of these underlying variables are known. Furthermore, recent advances in neurochemical research suggest that many drug effects on behavior are mediated by neurochemical events and that these relationships are reciprocal in the sense that changes in one may affect the other.

If all of these possible combinations and permutations appear to be hopelessly confounded,

it should simply caution us against premature generalizations about drug effects. Although it is true that a full understanding of drug induced behavior (the science of psychopharmacology) is limited by present scientific knowledge, the presence of all these drug and user variables should temper our desire to simplify the drug story and encapsulate it in misleading cliches (e.g., "speed kills," "grass is safe," "wine is healthy," "glue sniffing causes brain damage," "LSD breaks chromosomes," or "Valium is safe." In the past such attempts probably contributed to the concept of drugs as magic and, indirectly, to the need for this training course. Keep in mind the specification principle as we explore the ways in which drugs work. You have nothing to lose but your belief in magic.

THE ORIGINS OF DRUGS AND DRUG EFFECTS

In ancient Greece the term pharmakoi meant "human medicine" and was applied to poisons and other substances given to hurt or heal people. Our present work pharmacology is derived from that Greek word. The word drug is of old German origin and simply means a "dry herb." The origins of all those herbs, drugs, poisons, and medicines go back millions of years.

In the beginning of the Mesozoic Era, some 225 million years ago, coal swamp flora and fauna were disappearing while angiosperms (the flowering plants) and reptiles were beginning their evolutionary advance. The angiosperms rapidly became dominant, and the evolution of their plant chemistry eventually led to the origins of drugs and drug effects. First, angiosperms started to produce tannins. Little is known concerning the role of tannins in plants, but these substances do act as antifungal agents. For animals, they have a bitter taste, inhibit protein digestion and enzyme activity, and cause liver lesions if taken in excess. Second, angiosperms began to produce alkaloids, chemical substances that constitute major groups of drugs. As a general rule, alkaloids have no known function in plants and no one really knows why plants produce these drugs. Alkaloids taste bitter, like the tannins, but have a wider range of physiologic activity, including psychological, teratogenic (disturbs growth and development), and toxic effects. Thus, they act as extremely effective feeding deterrents. It has been argued by many scientists, especially UCLA psychopharmacologist Dr. R.K. Siegel, that many of the naturally occurring plant drugs are evolutionarily justified in terms of the maladaptive effects they could have on herbivores.

If you chew a piece of leaf material from a plant or tree you will probably notice an immediate bitter taste. The more you chew, the more pronounced the bitterness. Your immediate reaction may be to spit it out and reject further eating of the plant. That is exactly the reaction nature intended. (This can be used for group discussion.)

Consider what happens when an animal goes to eat such a plant. As it starts to eat, a bitter taste occurs. If the animal does not reject the plant and continues to eat, many alkaloids will produce a numbing sensation. If the animal continues to ingest the plant, the alkaloids may induce dizziness, nausea, and vomiting. In this state it may fall prey to other animals and die. If it does survive, the animal runs the risk of toxic and other physiologic effects. Thus the plants survive by producing protective and defensive drugs, and animals can survive if they avoid such plants or somehow learn to "handle" the drug effects.

The first animals to eat plant drugs did not handle them very well. When plants started producing alkaloidal drugs, the dominant life in the animal kingdom—the dinosaurs—started to become extinct. These giant reptiles, unlike the birds and mammals that followed them, failed to evolve efficient mechanisms with which to taste and thus detect the alkaloids, and they also failed to evolve effective livers to detoxify them. Subsequently, changes occurred in the thickness of dinosaur eggshells, the size of their hypothalamus increased (indicative of stress), and their fossils have been found in contorted positions suggestive of alkaloid poisoning.

Today, 65 million years later, veterinarians are well acquainted with the contorted bodies of grazing horses and cattle that have accidentally ingested lethal amounts of highly toxic alkaloidal plants such as wild tobacco. Similar accidents have occurred in humans. For example, a group of soldiers, sent to Jamestown in 1676 to put down Bacon's Rebellion, ate the young shoots of the Datura plant as a pot green and became severely intoxicated for several days. Datura (containing scopolamine, atropine, and other drugs used in modern cold remedies and sleeping aids) has since been known as "Jamestown" or jimson weed. Mark Anthony's legion had a similar accident with Datura during a retreat in 38 BC. Periodic outbreaks of ergotism,

resulting from accidental ingestion of a rye fungus (from which we get LSD) were common in the Middle Ages and even in this century. Epidemics occurred in France as far back as AD 857 and as recently as 1951. In AD 944, about 40,000 people died of the disorder.

Not all human encounters with naturally occurring drugs were accidental. In ancient times people learned much of their basic psychopharmacology from observation of animals. Many drugs and drug effects were discovered in this way. For example, the legendary discovery of coffee, purportedly around AD 900, was made by an Abyssinian tending his herd of goats. The herder noticed that his animals became abnormally "frisky" after eating bright red fruit of a tree later isolated and identified as coffee. In India, natives learned to use "mungo root" for snake bites after watching mongooses do the same (the root has antibacterial properties).

Other observations of animal behavior led to more efficient use of plant resources; e.g., according to folklore, coca was first ingested by pack animals traveling in the high Andes mountains of Peru where they were deprived of normal forage. The coca leaves sustained the animals, and humans quickly copied this action and began chewing the coca leaves. Recent nutritional analysis of coca has revealed that 100 grams of leaves contain 305 calories, 18.9 grams of protein, 46.2 grams of carbohydrates, and satisfy the Recommended Dietary Allowance for calcium, iron, phosphorous, and vitamins A, B₂, and E. The coca thus sustained Peruvian travelers who ate irregularly, had an improper diet, and worked strenuously at high altitudes where oxygen was minimal.

The names of many plants reveal something about their observed effects on animals. Some were named for the apparent adverse reactions they elicited. For example, Cow Bane (or hemlock) killed cattle and other grazing animals. The suicide of Socrates was performed with hemlock, and the Iroquois Indians also employed hemlock roots for this purpose. Other plants were identified by the attraction that animals displayed toward them. Catnip (containing a hallucinogenic oil) was eagerly ingested by cats, and it was later used by human beings as a marihuana substitute. Hare's Lettuce (containing a narcotic like alkaloid) was used by rabbits for stimulant and medicinal effects and later by humans as an opium substitute. Pigeon Candy was an early name for hempseeds (*Cannabis* or marihuana) derived from its stimulating effects on pigeons. These effects were also observed by the ancient Greeks who adopted the habit of eating hempseeds after watching birds do so.

Some humans even in prehistoric times, had drug experience far beyond that obtained by animals. Archaeological findings indicate that the use of alcohol, opium, and *Cannabis* developed early. Indeed, exploitation of plant drug resources may date from 40,000 BC. Hunting and gathering societies were in an excellent position for such experimentation. The relative ease of fermentation in stored foods accounts for the early use of alcohol. According to some scholars, the use of wine and beer date from 6400 BC in Anatolia, and predynastic Egyptian farmers around 4500 BC learned to maximize fermentation and alcoholic content by malting their grain or sprouting it before grinding. Elsewhere, alcohol may also have been made by people who copied animal behavior. In Africa, bushmen made an intoxicating beverage from fermented fruit which was probably inspired by watching elephants become tipsy and stagger about after eating the fermented fruit of various trees.

Archaeological evidence from Greece and Cyprus reveals ritual use of opium as early as 2000 BC. Hempseeds, together with a caludron and stones used for smoking them, have been found in excavations in Central Europe and estimated to date from 430 BC. Hempseeds were also used by Pythia, the priestess of the Oracle of Delphi. However, the use of *Cannabis* is far older; a Chinese treatise on pharmacology (2737 BC) refers to medicinal uses of *Cannabis*. Other archaeological evidence indicates that the smoking of tobacco and the chewing of Kava, betel nut, and coca leaves have been practiced since Paleolithic times.

Perhaps the most intriguing developments in drug use were the different routes by which people learned to introduce them into the body. Orgal ingestion was as natural as eating and probably started that way. Sniffing and inhaling the gaseous vapors and fumes from burning plants were also as natural as breathing. The two major plant drugs smoked by humans (nicotine from tobacco leaves, and morphine from opium poppies) are rapidly absorbed into the bloodstream from the lungs and go quickly carried to the brain. Within seconds, people would experience a direct drug effect which could be associated with the vapors just inhaled. Initial experiences with injection techniques probably came from application of plant drugs to open wounds and

sores. Animal quills and sharpened hollow bones were later introduced as the first hypodermic needles, and animal bladders were used as the first syringes.

Ancient Aztec pharmacology developed sophisticated uses for over 461 plant drugs. The Aztec and the ancient Moche civilizations probably used enemas with drugs such as tobacco, wine, and hallucinogens. They also sedated victims for human sacrifice with a mixture of several potent drugs, including an anesthetic drug from Solandra plants that was simply thrown into the faces of captives to dull their senses before being killed. Today, you might get these drugs (scopolamine and atropine) in a hospital before undergoing surgery. These same drugs were used in ointments by European witches during the late Medieval and Renaissance periods. It was readily apparent that they were rapidly absorbed through the skin. The nakedness associated with witches' sabbats facilitated the application of ointments. The familiar broomstick served to apply the atropine containing plant to the sensitive vaginal membranes and provided the suggestion of riding on a steed, an illusion typical of the witches' ride to the Sabbat.

DRUG EFFECTS AND THE MAJOR IMPACTS ON HUMAN BEHAVIOR

Once a drug is introduced into the body, certain effects may be experienced by the user. Drugs can have impact on perception, memory, mental states, and psychomotor functioning. These are not the only effects, but they are the major ones relevant to human behavior and conduct.

Effects on Perception

Perception is defined as those processes by which people receive or extract information about the environment through sensory apparatus (e.g., seeing and hearing). Drugs can alter the sensitivity of these systems and thereby alter perception.

Spatial time and temporal relationships are examples of perceptions commonly affected by drugs. Marijuana, alcohol, hallucinogens, and other drugs have been known to expand or contract estimates of elapsed time or distance. For example, in simulated driving tests involving use of moderate doses of marijuana, some subjects perceived themselves to be driving at a speed faster than that actually being simulated. Similarly, some user perceptions relating to enhanced sexual performance under the influence of marijuana are thought to relate to temporal distortions as well as to abolition of negative perceptions. Temporal distortions have also been described by amphetamine users who perceive themselves to be performing more activity in shorter time spans.

Drug effect may simply be a facilitating factor in many alterations of perceptions; the effect of setting, for example, cannot be overlooked. However, the occurrence of illusions and hallucinations seem less influenced than other perceptual changes by non drug factors. Hallucinogens such as LSD increase the visual threshold in human beings, cause arousal of the central nervous system (CNS) and allow for hyperexcitation to visual and auditory events. Colors may seem more saturated and sounds may seem louder. Similarly, the delirium tremens associated with alcohol use is a state involving hallucinations and distortions of space and time.

Drugs may also produce changes in specific anatomic areas of sensory organs. For example, several phenothiazines (used for tranquilizing and sedative effects) have produced pigmentary degeneration of the retina, and, occasionally, blindness. Some drugs, such as the anti-depressant imipramine, have even precipitated glaucoma in susceptible individuals.

Drugs may also interfere with the user's perception of his own abilities. Some studies have reported that student amphetamine users tended to overestimate their capacity to make sound judgments and solve mathematical problems, and amphetamine using soldiers tended to overestimate their performance in certain routine monotonous tasks.

Effects on Memory

Human behavior is dependent in part on what has been learned, either from personal experience or from others. To the extent that drug use or any other event affects human ability to acquire recall or knowledge, it may influence the ability to anticipate the consequences of certain behavior. A full detailed explanation is impossible in this lecture, but some general

observations may be made regarding the influence of drugs on memory (short term and long term storage and retrieval).

Retention or acquired learning is hindered by amnesia or forgetfulness. Amnesia is a state of decreased retrieval produced by trauma or by chemicals; forgetfulness is a state of decreased retrieval produced by passage of time or by preoccupation with sensory input during time. Among the precipitators of amnesia are electroconvulsive shock, anoxia, anesthesia (barbiturate and ether), carbon dioxide, and certain antibiotics. With regard to psychoactive drugs, anesthesia produced by either ultra short acting barbiturates or by ether can precipitate amnesia. Similarly, blackouts are commonly reported after drug taking episodes, particularly during heavy dose phencyclidine intoxication, constituting a form of drug induced amnesia.

Drugs may also induce forgetfulness. It is common knowledge that moderate doses of barbiturates and alcohol can reduce or obliterate newly acquired knowledge; in recognition of this phenomenon, a highway safety device that would require the driver to recall a randomly displayed series of numbers before being able to engage an automobile ignition system was once proposed.

Occasionally, recall may be facilitated by drugs. Marijuana, LSD, and ketamine act vicariously to retrieve stored images and project them into some sensory modality. The use of short acting and intermediate acting barbiturates to facilitate recall of long term memory in psychoanalysis or espionage (truth serum) is well documented. Finally, nitrous oxide has been shown in some circumstances to reduce forgetfulness.

Effects on Mental States

Profound mental changes, both transient and permanent, have been attributed to psychoactive drugs. These include some drastic changes in mood and psychological status. Humans are normally constrained by sets of socially induced inhibitions from engaging in certain types of behavior. Drugs such as alcohol and other sedative hypnotics tend to relieve these socially inculcated anxieties thereby increasing the likelihood of the usually restrained behavior. The garrulous and amorous behavior associated with cocktail parties and the unabashed laughter following marijuana use are examples of this phenomenon. Indeed, such actions are so common as to form a battery of socially recognized excuses for normally embarrassing behavior. With prolonged use of high doses of some drugs, notably alcohol and the barbiturates, general irritability increases and aggressive threatening acts may occur. The challenging conduct frequently encountered in bars or following phencyclidine intoxication constitutes recognizable examples.

Some drugs, notably amphetamines, cocaine, and alcohol, can produce a sense of bravado and have reportedly been used intentionally to support the performance of daring acts. Euphoria associated with initial opiate experiences may promote thoughtless or indiscriminate actions. Amphetamines may induce garrulousness, hyperactivity, rash promises, and the like. Conversely, depressive states and suicidal acts are also associated with drugs, particularly with the sedative-hypnotic substances. This fact was overlooked when some sedative-hypnotic drugs were incorrectly promoted as tranquilizers appropriate for the treatment of depression.

Almost all psychoactive drugs can produce transient states of confusion and delusion. The use of hallucinogens, particularly by naive, control oriented individuals, can produce transient panic reactions, as the user apparently loses control of his environment. Phencyclidine has been associated with panic states involving fear of suffocation arising from the drug's powerful action on the respiratory muscles. Hydrocarbon inhalants have been associated with similar states of fear arising from displacement of oxygen in the inspired air. Acute states of confusion occur with overdoses of alcohol, barbiturates, and other sedative-hypnotic drugs. Alcohol and marijuana, among other drugs, have been known to produce depersonalization.

Subacute and chronic psychotic episodes, particularly paranoid reactions of a persecutory nature, are associated with the major stimulant drugs—cocaine, amphetamines, and amphetamine-like substances. A prolonged "spree" or "binge" use of stimulants may induce a psychosis similar to that induced by the hallucinogens (particularly phencyclidine or

or LSD). These drugs also have the specific capacity to induce an acute psychosis with a single effective dose even in so-called "normal" individuals. As with all of the drugs mentioned above, emotionally unstable individuals are especially susceptible to drug-induced behaviors of this type.

With few exceptions behavior disorders cannot be related specifically to detectable morphological change in the brain, either at the gross or microscopic level. Whereas gross and cellular changes have been associated with chronic alcoholism, and with very heavy intake of barbiturates and the hydrocarbons, profound behavioral and marked mental changes may also be observed following long term, chronic use of most other potent psychoactive drugs without any detectable cellular alterations whatsoever. In fact, this is usually the case. Thus, any statement that no mental dysfunction occurs because no brain damage can be demonstrated is in error.

The social significance of these drug induced mental changes is manifested in several ways. Those disruptions of mental function associated with illusions and hallucinations or states of confusion cause the individual to misinterpret his environmental impressions and react in an abnormal manner. This may take the form either of complete withdrawal and negativism, or at the other extreme, of violent and aggressive responses to situations that otherwise would not have been considered to be threatening. In either type of response, regard for welfare of self or others may be impaired or entirely lost leading to violent behavior and even to suicide and homicide.

Effects on Psychomotor Functioning

Depressant drugs as a class—alcohol, barbiturates, volatile hydrocarbons, and many lesser drugs—with the common properties of inducing unconsciousness and anesthesia in large quantities, produce varying degrees of motor incoordination as a dose related response. This phenomenon is so much a matter of common experience with the alcohol consuming public that it hardly warrants description.

These drugs impair the function of the highly integrated response mechanisms in the nervous system which control all coordinated acts such as walking, driving a car, and the like. Depressant drugs by impairing higher brain functions and distorting or rendering inactive sensory input, or by rendering the user inattentive to these controlling signals, may make him completely incapable of performing complex voluntary actions. Unfortunately, such impairment may occur with quantities of drugs much smaller than those required to prevent the muscular response itself. Thus, the driver of a motor vehicle under the influence of relatively small quantities of alcohol may lose control, not because he is unable to perform the mechanical act of driving, but because his attention span is reduced, his vision is impaired, his memory of a turn in the road is obliterated, or he fails to hear the horn of a passing vehicle. In other words, simply because a drug user can "walk a straight line" after drinking does not necessarily qualify him to drive a motor vehicle.

Stimulants, notably the amphetamines, have been widely used to permit truck drivers to endure long trips and athletes to carry on beyond their ordinary limits of endurance. Whereas such drugs may mask the subjective effects of fatigue, they do not correct the adverse effects of fatigue on attention, visual discrimination, and other factors that control proper psychomotor functioning. Amphetamines were used by all belligerents in World War II to prolong psychomotor performance. It was common practice for Allied pilots to take these drugs after a bombing mission in Germany to permit them to get back to their home bases in England. A surprisingly large number made the return flight to England safely but crashed their plans on landing. The subtle effects of fatigue on psychomotor and other sensory components of proper functioning are not corrected by this class or, for that matter, by any other class of drug. Interestingly, some American astronauts have taken amphetamines prior to critical reentry and splashdown maneuvers.

DEFINITION OF TERMS

Drug and Drug Abuse

The meaning of the word drug often varies with the context in which it is used. From a strictly scientific viewpoint, a drug is any substance other than food which by its chemical nature affects the structure or function of the living organism. From this perspective, the term

includes some agricultural and industrial chemicals, as well as therapeutic and recreational compounds. The physician might define a drug as any substance used as a medicine in the treatment of physical or mental disease. However, when used in the context of drug "abuse" or the drug "problem," the meaning of "drug" becomes social rather than scientific.

In its social sense, drug is not a neutral term. It is frequently used in connection with drug problems or abuse, and these terms reflect social disapproval. The National Commission on Marihuana and Drug Abuse reported in 1973 that the term drug abuse has no functional utility and "continued use of this term, with its emotional overtones, will serve only to perpetuate confused public attitudes about drug using behavior."

Drug abuse, or any similar term, creates an impression that all drug using behavior falls into one of two categories: drug use which is good, safe, beneficial and without social consequences; and drug "abuse" which is bad, harmful, without benefit, and carrying high social cost. The matter is too complex to be handled in such a polarized fashion (recall the specification principle). Instead we must avoid such labels and focus on the relative risks and social consequences of various patterns of drug taking behavior.

Drug Use

Throughout history people have used available psychoactive substances to seek relief from cold, hunger, deprivation, anxiety, pain, and boredom. Such substances have also been used for pleasure or to achieve new experiences. Various cultures have sought out and used naturally occurring plants for their psychoactive ingredients. People today consciously create new chemical substances and institutionalize their availability for similar uses.

Drugs have effects other than those which are sought; and all drug effects vary with amount and frequency of use, the characteristics of the user, and the set and setting. Consequently, different cultures have applied different values to the presumed consequences of drug use, whether beneficial or deleterious. Each society has decided which needs are legitimate, which effects are valuable, and which risks are tolerable. These judgments are based on prevailing values concerning specific drugs, their effects, the reasons for which they are used, and the people who use them.

People do not ordinarily continue to do something that does not fulfill some real or imagined need. To persist, behavior must be reinforced. To the extent that it does fulfill a need, it will recur, often at some risk, unless it interferes with a more important need. The need for a drug may be closely related to its real or imagined effects or it may be grounded in social rather than chemical elements. Use of specific substances may determine group membership, or status within a group, or among groups. It may function as either a symbol or symptom of rebellion, alienation, independence, or sophistication.

Behavior Patterns in Drug Use

Experimental. This is the most common type of drug use and is defined as a short term, non-patterned trial of one or more drugs, motivated primarily by curiosity or a desire to experience mood alteration. Experimental use most often occurs among young persons in the company of one or more drug experimenting friends or acquaintances.

Recreational. Most nonexperimental drug use can be classified as recreational, which occurs in social settings among friends or acquaintances who desire to share an experience which they define as both acceptable and pleasurable. Generally, recreational use is both voluntary and patterned and tends not to escalate to more frequent or intense use. This type of behavior is not sustained by virtue of the dependence of the user on the drug in any meaningful sense. Reinforcement for continued use is strengthened by non drug factors.

Circumstantial/Situational. This is the most rapidly growing pattern of drug use in the United States. This behavior is generally motivated by the user's perceived need or desire to achieve a new and anticipated effect in order to cope with a specific problem, situation, or condition of a personal or vocational nature. This classification would include students who utilize stimulants during preparation for exams, long distance truckers who rely on similar drugs to provide extended endurance and alertness, military personnel who use drugs to cope with stress in combat situations, athletes who attempt to improve their performance, and housewives who

seek to relieve tension, anxiety, boredom or other stresses via sedatives or stimulants:

Intensive. This pattern is followed by far fewer people who have gone from recreational or circumstantial use patterns into intensified drug use. In general, drug intake here occurs at least daily and is motivated by an individual's perceived need for relief from a persistent problem or stressful situation, or his desire to maintain a certain self prescribed level of performance. This category includes persons generally referred to as "problem drinkers" or "heavy social drinkers," housewives who regularly take barbiturates or other sedatives, and business executives that regularly consume tranquilizers. A very different group of intensive users are those youths who have turned to drugs as sources of excitement or meaning in otherwise unsatisfying life styles. The salient feature of this behavior is that the individual still remains integrated within the larger social and economic structure; however, regular use of one or more drugs may constitute dependence in a broad sense and may threaten to impair individual or social functioning.

Compulsive. The least frequent and most disturbing pattern is compulsive use, which involves both high frequency and potency and is characterized by psychological and perhaps physical dependence as well. The distinguishing characteristic of this behavior is that drug use dominates the individual's existence, and preoccupation with it impairs other social functioning. Compulsive drug use is most easily recognized among chronic alcoholics and heroin-dependent persons.

Drug Related Risk

General characteristics of drug related risk are as follows:

- Both individual and social risk escalates with increasing dose and higher frequency of administration.
- Drug related risk varies in accordance with many factors:
 - The mode of drug administration, generally it is highest for intravenous administration and lowest for oral ingestion
 - The setting in which use occurs, particularly when low doses are used.
 - The user's capacity to control intake and detoxify the drug. The greatest risk occurs when the rate of administration exceeds the capacity of the body to detoxify the drug and in consequence the brain is never drug free.
 - The "set" of the user, including the expected and desired outcome of the drug experience, his/her personality, ability to compensate for drug effects on the basis of prior experience, and ability to limit intake according to a predetermined capacity.
- Risk often increases significantly if two or more drugs are used concomitantly.

Many risks associated with drug use are a function of social policy rather than the drugs themselves. Unintentional drug overdoses occur most often among those who have secured drugs outside legal sources which ensure quality control and potency. For example, the incidence of alcohol induced blindness was significantly higher during Prohibition than it is today mainly because during that period users resorted to methyl alcohol. Diluted and "cut" street drugs that increase the bulk of the drug with insoluble materials increase the likelihood of pulmonary and circulatory disorders when the substances are injected intravenously. Finally, much drug related crime, particularly crimes against property associated with heroin dependence, results from a social prohibition of availability rather than the drug itself. A new type of risk for recreational drug users was initiated by the United States and Mexican governments in 1975 when they began aerial spraying of marihuana fields with the herbicide Paraquat and opium fields with the herbicide 2,4-D. Both substances are toxic to humans, and irreversible lung damage has been reported from smoking paraquat contaminated marihuana.

Needless to say, sometimes the greatest risks and hazards associated with drug use are the

criminal penalties provided for use, possession, and sale.

Benefits

Nonmedical drug use may have significant benefits to the individual. In addition to specific psychological or physical effects desired by the user, a number of nonmedical drugs have some limited medical benefits. Marihuana shows therapeutic promise which is currently being investigated. For example, intraocular pressure is reduced in normal subjects and glaucoma patients with smoked marihuana or oral THC. Asthmatics seem to respond to oral, smoked, or aerosolized THC (active principle of marihuana) as well as to the conventional anti-asthmatic medications. THC is also being studied for effects in ameliorating the nausea and vomiting of patients receiving cancer chemotherapy. Clinical tests also indicate that cocaine may be useful as a short acting antidepressant.

Compulsive Drug Use and Dependence

One of the hazards in the use of drugs for mood alteration is that some individuals eventually behave as if the effects produced by a drug, or the conditions associated with its use, are necessary to maintain an optimal state of well being. Such people are said to have a psychological dependence (habituation) on the drug. The intensity of this dependence may vary from a mild desire to a "craving" or "compulsion" to use the drug. This need may then give rise to behavior (compulsive drug use) characterized by a preoccupation with use and procurement of the drug. In extreme forms, the behavior exhibits the characteristics of a chronic disease.

Compulsive drug use is commonly, but not necessarily, associated with the development of tolerance and physical dependence. Tolerance has developed when, after repeated administration, a given dose of a drug produces a decreased effect, i.e., increasingly larger doses must be administered to obtain the effects observed with the original dose. Physical dependence refers to an altered physiological state produced by the repeated administration of a drug, which necessitates the continued administration of the drug to prevent the withdrawal or abstinence syndrome, characteristic for that drug.

Addiction

The word addiction evolved from the Latin addicere which, in Roman law, meant the giving or binding over of a person to one thing or another, such as a judge assigning a debtor to his creditor. By the late 16th Century, "to addict" had assumed a broader meaning: to devote, give up or apply habitually to a practice. The word has generally been identified with bad habits and vices and the word addiction, like the term abuse, can no longer be employed without extensive qualification. Since it is unlikely to be deleted from language, a suitable definition is a behavior pattern of compulsive drug use, characterized by overwhelming involvement with the use of a drug, the securing of its supply, and a high tendency to relapse after withdrawal.

Addiction is thus viewed as an extreme on a continuum of involvement with drug use and refers in a quantitative rather than a qualitative sense to the degree to which drug use pervades the life of the user. In most instances it will not be possible to state precisely at what point compulsive use should be considered addiction. Anyone who is addicted can be considered drug dependent. This dependency does not necessarily imply a physical dependence. It may be only a psychological dependence. It is possible to be physically dependent on drugs without being addicted and to be addicted without being physically dependent.

Narcotic

The word narcotic comes from the Greek narkosis meaning "benumbing" or to be in a stupor. It is incorrectly applied to a wide variety of drugs ranging from marihuana to alcohol. Scientifically, narcotics are related botanically to the opium poppy and pharmacologically related to opium, morphine, and heroin. Medically, the term narcotic also refers to synthetic drugs that have morphine like pharmacologic activity. However, legally the word narcotic can mean anything the legislature of a State or country decrees. In some States in the United States, the word narcotic refers legally to all drugs with morphine like activity as well as such grossly different drugs as cocaine and marihuana.

Drugs as Reinforcers

The human tendency to take drugs is shared with other mammals. Laboratory animals quickly learn to self administer most of the drugs we commonly use for nonmedical purposes. When given continuous access, animals show patterns of self administration that are strikingly similar to ours. Such observations suggest that preexisting psychopathology is not necessary for initial or even continued drug taking, and that drugs themselves are powerful reinforcers, even in the absence of physical dependence. (Interestingly, the drug most preferred by animals in experimental laboratory studies is cocaine, which is also preferred by humans. Conversely, animals will never self administer the tranquilizer Thorazine^R and it is also used nonmedically by humans. Animals will almost always avoid hallucinogens unless nothing else is available to eat or do in the environment. When stressed, animals will seek out alcohol and similar drugs to reduce anxiety.)

Tolerance to Opioids

Tolerance does not develop uniformly to all the actions of a narcotic drug. Complete tolerance to some actions may be concurrent with undiminished responses to others. Opioid tolerance is characterized by a shortened duration and decreased intensity of the analgesic, euphorogenic, sedative, and other CNS depressant effects as well as by a marked elevation in the average lethal dose. Although animals tolerant to opioids may metabolize them more rapidly, changes in the rate of drug disposition cannot fully account for all the phenomena of opioid tolerance, including the observation that tolerant animals are less depressed in response to the same doses of morphine or methadone that produce severe depression in non tolerant animals. Most of the tolerance seen with opioids must be attributed to some form of adaptation of cells in the nervous system to the action of the drug (Pharmacodynamic, tissue, or cellular tolerance).

Although tolerance itself does not necessarily affect the likelihood of continued use, it can affect patterns of use by increasing the dosage necessary to produce a given effect (e.g., euphoria). The use of increased amounts may in turn enhance the risk of toxic effects or produce other problems if the drug is expensive or obtained illicitly.

Tolerance to Alcohol, Barbiturates, and Related Hypnotics

Pharmacodynamic tolerance occurs with alcohol and barbiturates inasmuch as animals tolerant to barbiturates or alcohol show significantly less sedation and ataxia than do nontolerant animals to the same doses. However, as doses are increased (and blood concentrations are increased) animals tolerant to alcohol or barbiturates show no dramatic elevation of the lethal blood concentration.

Animals tolerant to short acting barbiturates (e.g., hexobarbital, pentobarbital), alcohol, and a number of nonbarbiturate hypnotics (e.g., meprobamate) show a more rapid enzymatic degradation of the drug than nontolerant animals. Thus, animals tolerant to these drugs show decreased duration and intensity of response to a given dose because they are adapting to the drug and disposing of it rapidly (drug disposition tolerance) with the help of increased enzyme activity.

Cross-tolerance

Tolerance to certain drugs often extends to others. For example, individuals tolerant to the effects of LSD exhibit cross tolerance to mescaline and psilocybin; no cross tolerance, however, is exhibited to the effects of amphetamine or Cannabis. The existence of this type of cross tolerance indicates that LSD, mescaline, and psilocybin all share a common mechanism of action or metabolism in the body. Also, alcoholics can be unusually resistant to the effects of sedative and hypnotic drugs and general anesthetic agents because of cross tolerance by alcoholics to other generally depressant drugs. Indeed, anesthesiologists usually find that large doses of anesthetic drugs are needed to induce surgical anesthesia in alcoholics.

Psychological Dependence

Psychological dependence can occur to anyone or anything. It is also known as psychic dependence and refers to the user's attitude that the effects produced by a drug, or the conditions associated with its use, are necessary to maintain an optimal level of well being.

Many researchers believe that psychological dependence develops as a result of the rewards or reinforcements the user obtains from the drug experience. Psychological dependence, like addiction, can produce a craving or compulsion.

One can become psychologically dependent on drug and nondrug stimuli, such as television. Consider the average American in 1978 who watched over 6 hours of TV per day. According to one survey these people claimed that watching TV was relaxing and helped them escape from day to day problems. They felt a compulsion to watch anything. Chances are that if you pulled the plug on such a person's TV set, or otherwise prevented him from viewing the screen, you would precipitate behavior directed towards continued viewing (i.e., fixing the set, using a spare TV, watching a friend or neighbor's TV, etc.). Indeed, you might even precipitate behaviors like irritability, aggression, frustration, and other signs of craving. From such observations one could conclude that the viewer was not only psychologically dependent on TV, but may have been physically dependent as well since you observed behaviors reminiscent of withdrawal. It is often difficult to separate psychological dependence from some forms of physical dependence. (This can be used as a basis for group discussion.)

Physical Dependence

Physical dependence is usually defined as the reliance of the body tissues on the continued presence of a drug. Physical dependence manifests itself as a series of physiologic disturbances called the withdrawal or abstinence syndrome. These withdrawal symptoms are characterized by rebound effects in those same physiologic systems that were modified initially by the drug. For example, general depressants elevate the seizure threshold, but spontaneous seizures occur during withdrawal; morphine depresses spinal reflexes, but these same reflexes are hyperexcitable during morphine withdrawal. Amphetamines alleviate fatigue, suppress appetite, and elevate mood; amphetamine withdrawal is characterized by lack of energy, hunger, and depression. Nicotine tends to suppress anger; irritability is a common complaint following abrupt cessation in heavy smokers.

Physical dependence and withdrawal symptoms are due to drug induced alterations within the nervous system with the most prominent changes occurring in the CNS.

The time required to produce physical dependence on any drug depends on a number of factors, but the most important seem to be the degree to which function in the CNS is altered by the drug and the continuity of this alteration. However, whether a withdrawal syndrome can be observed clinically depends on (1) the criteria for withdrawal symptoms, (2) the sensitivity of techniques used to detect withdrawal phenomena, and (3) the rate at which the drug is removed from its site of action.

Patients who have received therapeutic doses of morphine several times a day for 1-2 weeks will have only mild symptoms when the drug is stopped. However, if an opioid antagonist (e.g., naloxone) is used to induce withdrawal, it is possible to produce severe withdrawal symptoms after the same use of morphine. It is important to note that the phenomenon of opioid physical dependence is initiated by the first dose and develops quite rapidly. In former heroin addicts, naloxone precipitates mild withdrawal a week after a single low dose of methadone.

The time required to produce physical dependence with general CNS depressants is also short, especially with alcohol and pentobarbital. This is because when rapidly metabolized drugs are used, the earliest signs of rebound excitability can be detected after surprisingly brief periods of CNS depression. In contrast to short acting drugs, abrupt discontinuation of long acting drugs, such as methadone, produces withdrawal symptoms that are slow in onset and generally less severe. This is true of long acting hypnotics and sedatives like phenobarbital.

The relationship between compulsive drug use and physical dependence is more variable and far more complex than was previously realized. For example, a large proportion of the young men who served in the United States Army in Vietnam used heroin, and about half this group became physically dependent. Nevertheless, a substantial percentage simply stopped their heroin use before they returned to the United States, and many did so without benefit of any special treatment.

It is probable that at least some degree of physical dependence on CNS depressants (including alcohol) develops after relatively brief periods of continuous use, yet the majority of individuals are able to tolerate minor withdrawal phenomena and do not become compulsive drug users. Thus, although some compulsive users attribute their drug problems entirely to "getting hooked," physical dependence is currently viewed not so much as a direct cause of compulsive use but as one of several factors that contribute to its development and to the tendency to relapse after withdrawal.

Cross Dependence

The ability of one drug to suppress the manifestations of physical dependence produced by another and to maintain the physically dependent state is referred to as cross dependence. This may be partial or complete, and the degree is more closely related to pharmacological effects than to chemical similarities.

In general, any potent opioid will show cross dependence with other opioids. Partial cross dependence is also seen between alcohol and barbiturates, whereby alcohol can substantially but not completely suppress the symptoms of barbiturate withdrawal. Some cross dependence also exists between barbiturates and volatile anesthetics.

If a long acting drug such as methadone is substituted over several days for morphine, abrupt discontinuation produces a withdrawal syndrome characteristic of the long acting drug rather than that of morphine. This aspect of cross dependence has important clinical implications, since the withdrawal symptoms that occur with drugs that have longer half lives (methadone, phenobarbital, etc.) are generally less severe but more protracted. This phenomenon is the basis for the substitution treatment of physical dependence for both opioids and CNS depressants.

Drug Combinations

When more than one drug is taken, antagonism may occur. One compound may offset the action of the other--the combined effect of two drugs may thus be less than the sum of the effects of the two drugs acting separately. For example, the muscle relaxant Valium[®] will counteract the hyperexcitability and insomnia produced by stimulants. Many alcohol or marijuana users take cocaine to diminish lethargy so that they become more alert and oriented to drive home after an alcohol or marijuana party.

When more than one drug is taken, potentiation may occur. That is, the resultant combination of drugs may have an additive effect. For example, the stimulant Ritalin[®] will potentiate the stimulant and arousing effects of most hallucinogens like LSD. However, such potentiation is not necessarily uniform for all drug effects. Ritalin will not affect the visual imagery and other perceptual effects of LSD. Likewise, nicotine will potentiate the stimulant effects of cocaine, but it will not affect cocaine induced mydriasis.

Synergism refers to different situations in which the combined effect of two or more drugs acting simultaneously is greater than the effect of each agent added together. This means that the joint effect of two drugs is greater than the sum of their individual effects. For example, cocaine and amphetamine may combine to produce a hypertensive crisis at doses of each drug that are far below such levels. Phencyclidine (PCP) can combine in a synergistic way with almost any stimulant and produce seizures that cannot be predicted by the simple addition of the two doses. Some drugs may be synergistic with themselves if used chronically over a long time. For example, daily low doses of amphetamine may eventually cause a type of synergism known as kindling. Even if the dose is not raised, the brain becomes kindled, much like a fire, and the threshold for an electrical seizure is lowered and the next regular low dose of amphetamine may cause a seizure (and this is unpredictable in time).

Placebo Effect

A placebo may be defined as an inert substance represented to be an active drug. Under appropriate circumstances, and particularly when anticipation is great, the administration of placebos can produce quite striking effects. It has been repeatedly demonstrated in clinical experiments, for example, that among patients who are most probably in pain, such as those recovering from major surgery, 33 percent will report appreciable relief from pain after injection of a placebo.

Trust and anticipation appear to be major factors in the placebo effect: trust in the enthusiastic recommendations of others about a certain preparation and, based on this trust, anticipation so powerful that an effect is produced despite the fact that the pharmacological activity of the preparation is negligible. Examples of recent mass placebo effects include the smoking of banana skins to obtain a psychedelic high and the use of a lettuce extract to stimulate an opium intoxication.

The placebo effect is specific to the individual and the setting, and not to any chemical properties of the substance involved. Therefore, despite an apparent "drug effect," the placebo is not considered a drug, since it does not alter function by its chemical nature.

CLASSIFICATION OF DRUGS

Drugs may be divided into two broad categories: psychoactive and nonpsychoactive. Non-psychoactive drugs are those substances which in normal doses do not affect the brain and behavior. Examples of such drugs include vitamins, minerals, and local anesthetics. Psychoactive drugs are those substances which do affect the brain and behavior, and these are further divided into several classes.

Since our major concern here is with the effects of psychologically active substances, this classification system is based primarily on general psychological and pharmacological considerations. Nine major classes can be considered and they are listed below. Although these classes are not exhaustive, the general system is applicable to most drugs used for their psychological effects:

1. Sedatives and Hypnotics
2. Stimulants
3. Hallucinogens and Psychedelics
4. Narcotic Analgesics
5. Volatile Solvents
6. Nonnarcotic Analgesics
7. Clinical Anti-Depressants
8. Major Tranquilizers
9. Herbal Intoxicants

The sedatives and hypnotics (e.g., alcohol, barbiturates, sleeping pills, and minor tranquilizers) generally decrease CNS arousal (although some psychological stimulation may result at low doses). Most of these drugs are used medically to reduce anxiety and tension, to produce general sedation and, at higher doses, sleep. The anticholinergic substances (e.g., scopolamine and atropine) are often used as sedatives at low doses, although larger amounts may produce excitation and delirium. This class of drugs is also known as general depressants.

The stimulants (e.g., amphetamines, speed, diet and pep pills, black beauties, whites, miniwhites, caffeine, and cocaine) generally suppress appetite, increase activity, alertness, tension and general CNS arousal, and, at higher doses, block sleep. Tobacco (nicotine) is usually considered physiologic stimulant, although a variety of other effects are not uncommon.

The hallucinogens include drugs described as psychedelic (mind manifesting), hallucinogenic (hallucination producing), psychotomimetic (psychosis imitating), illusionogenic (illusion producing), and psychodysleptic (mind disrupting). Although these terms refer to somewhat overlapping effects alleged to occur with the drugs in this class, the various labels emphasize different characteristics that are neither synonymous nor necessarily mutually exclusive. These drugs may produce profound alteration in sensation, mood, and consciousness

at doses which result in comparatively slight physiologic activity. Examples are LSD (acid), psilocybin (magic mushrooms), marihuana (grass), green (ketamine), Angel Dust (phencyclidine or PCP), among others. The medical value of these drugs is the subject of considerable current research.

The drugs in the next category have been traditionally referred to as opiate narcotics, or opioids. The best known examples are heroin (smack, junk), morphine (M., Miss Emma, morph), codeine (schoolboy), Demerol^R (Demies), Dilaudid^R (Little D), opium (Blue velvet, black stuff), and Percodan^R (Perkies). These drugs are used medically for their pain relieving effects and are known as the narcotic analgesics.

The fifth group is an aggregate of chemically diverse substances perhaps best described on a physical basis as volatile solvents. They are usually inhaled and include the vapor of such common materials as glue, gasoline, and lacquer thinner. Some of these drugs have been called delirants, though delirium is only one of many potential effects and is clearly not restricted to these substances. Many are quite similar in effect to the sedative group and might be considered in a subclass of that category. Others may have slight psychedelic or hallucinogenic effects. Most of these substances have no known medical use, although several have been employed as clinical anesthetics. Other inhalants in common usage are amyl nitrite (Poppers), butyl nitrite (Locker Room^R, Rush^R, etc.), and nitrous oxide (laughing gas, which is more correctly classified as a hallucinogen).

The nonnarcotic analgesics (e.g., aspirin, Phenacetin^R, Darvon^R, Talwin^R) are primarily used to reduce aching pain and to lower fever. In some instances they may also serve as mild sedatives.

The clinical anti-depressants (e.g., Tofranil^R) are used medically to improve mood in severely depressed patients. These drugs are rarely used for nonmedical purposes, since they have little effect on normal mood states.

The major tranquilizers are primarily used to reduce the symptoms of severe psychosis (e.g., schizophrenia). Examples are Thorazine^R and Mellaril^R. These drugs have initiated a wide spread revolution in chemotherapy in psychiatry but they are rarely involved in nonmedical use.

The herbal intoxicants are plant preparations designed to be smoked or ingested for "health and happiness." Most are presently legal and are promoted as legal hallucinogens, euphorants, and marihuana substitutes. At least 25 major psychoactive drugs have been identified in these products and they are available as herbal cigarettes, teas, and capsules. Valerian is used as a relaxing tea or in capsules and contains the tranquilizer chatinine. Mormon Tea contains the stimulant ephedrine and is used as a strong stimulating beverage. Scotch Broom is smoked for relaxation and contains the strong sedative-hypnotic cytisine. Ginseng root products are used as panaceas for a wide variety of medical problems and they contain numerous stimulants that can cause hypertension if taken in excessive doses.

ACTIONS AND EFFECTS OF NARCOTIC ANALGESICS

Rapid intravenous injection of an opioid produces a warm flushing of the skin and sensations in the lower abdomen described by addicts as similar in intensity and quality to sexual orgasm, and known as a "rush," "kick," or "thrill." Although heroin is the most commonly used illicit opioid, it has few special pharmacological properties that account for its popularity. Given subcutaneously (under the skin) even experienced users cannot reliably distinguish heroin from morphine. This is understandable, since heroin is rapidly converted to morphine in the body. When these two drugs are given intravenously, addicts are better able to distinguish between them. Because of the greater lipid solubility of heroin in comparison to morphine, a larger fraction crosses the blood-brain barrier, thus producing a rapid onset of opioid effects. In the brain, heroin is rapidly converted to morphine. In this sense, heroin carries morphine rapidly into the brain. (Only one other drug gets into the brain faster than heroin and that is nicotine, which may be one of the reasons why the nicotine "habit" is harder to break in many cases than the heroin "habit.") On a weight basis, heroin is about 2.5 times as potent as morphine, but it does not produce more euphoria, greater physical dependence, or fewer side effects. Its popularity in illicit use may be related in part to its ease of manufacture and its relatively smaller bulk.

NARCOTIC ANALGESICS

Natural Opioids Obtained From Opium

Morphine
Codeine

Semisynthetic Opioids

Dihydromorphone (Dilaudid^R)
Heroin
Methyldihydromorphone (Metopon^R)

Synthetic Opioids

Phenazocine (Prinadol^R)
Meperidine (Demerol^R)
Anileridine (Leritine^R)
Diphenoxylate (with atropine as Lomotil^R)
Methadone (Dolophine^R)
Levorphanol (Levo-Dromoran^R)

Synthetic Opioids With Low Potency and Low Dependence Liability

Propoxyphene (Darvon^R)
Ethoheptazine (Zactane^R)
Pentazocine (Talwin^R)

Narcotic Antagonists

Nalorphine (Nalline^R)
Levallorphan (Lorfan^R)

Opioids reduce pain, aggression, and sexual drives, and their use, therefore, is unlikely to induce crime. However, many individuals commit crimes prior to opioid use, and they do not necessarily stop when it begins. In addition, many individuals who did not engage in crime previously may begin to do so in order to obtain money to buy opioids, since the cost is generally beyond the amount they can obtain legitimately.

The medical complications common among drug users of this class include infections (e.g., septicemia, endocarditis, hepatitis, tetanus, and pulmonary, cerebral, and subcutaneous abscesses) from shared needles and unhygienic procedures, foreign body emboli, granulomata from injection of contaminants, and a variety of neurological, musculoskeletal, and other lesions that may be due to hypersensitivity reactions.

A remarkable degree of tolerance develops to the respiratory depressant, analgesic, sedative, emetic, and euphorigenic effects of opioids; however, the rate at which this tolerance develops, in either the addict or the medical patient, depends on the patterns of use. If the drug is used frequently, the addict who is primarily seeking to get "kick" or to maintain a state of dreamy indifference (a dissociative high) must constantly increase the dose. In this way, some addicts can build up to phenomenally large doses. In one verified case, a dose of 5 grams of morphine was used each day. With the development of tolerance, the lethal dose is not absolute. With all opioid analgesics a dose always exists that is capable of producing death from respiratory depression, even in tolerant individuals.

Tolerance does not develop equally or at the same rate to all the effects of opioids. Even users highly tolerant to respiratory depressant effects continue to exhibit miosis (constricted pupils) and to complain of constipation. A high degree of cross tolerance between opioid analgesics, even those that are chemically dissimilar, is a constant finding. Tolerance to opioids largely disappears when withdrawal has been completed, and many addicts have taken fatal overdoses by returning to their previous dosage immediately after undergoing withdrawal.

The character and severity of the withdrawal symptoms depend on factors outlined in the specification principle. The abstinence syndrome is made up of purposive behavior, which is goal oriented and directed toward getting more drug, and nonpurposive behavior, which is not goal oriented and relatively independent of the observer of the environment.

In the case of morphine or heroin, the first withdrawal signs are usually noted shortly before the time of the next scheduled dose. At this time, purposive behavior is prominent; it increases in intensity, reaching a peak at 36-72 hours after the last dose, and then gradually subsides. Nonpurposive symptoms, such as lacrimation, rhinorrhea, yawning, and sweating, appear about 8-12 hours after the last dose. About 12-14 hours after the last dose, the addict may fall into a tossing, restless sleep which may last several hours but from which he awakens more restless and miserable than before. As the syndrome progresses, additional signs and symptoms appear, consisting of dilated pupils, anorexia, gooseflesh, restlessness, irritability, and tremor. With morphine and heroin, nonpurposive symptoms reach their peak at 48-72 hours. As the syndrome approaches peak intensity, the patient exhibits increasing irritability, insomnia, marked anorexia, violent yawning, severe sneezing, lacrimation, and coryza. Weakness and depression are pronounced. Nausea and vomiting are common, as are intestinal spasms and diarrhea. Heart rate and blood pressure are elevated. Marked chilliness, alternating with flushing and excessive sweating, is characteristic. Pilo motor activity resulting in waves of gooseflesh is prominent, and the skin resembles that of a plucked turkey. This feature is the basis of the expression "cold turkey" to signify abrupt withdrawal without treatment. Abdominal cramps and pains in the bones and muscles of the back and extremities are also characteristic, as are the muscle spasms and kicking movements that may be the basis for the expression "kicking the habit." Other signs of CNS hyperexcitability include ejaculation in men and orgasm in women.

The failure to take food and fluids, combined with vomiting, sweating, and diarrhea, results in marked weight loss, dehydration, ketosis, and disturbances in body chemistry. Occasionally cardiovascular collapse occurs. Administration of a suitable opioid will completely and dramatically suppress the symptoms of withdrawal. Without treatment, the syndrome runs its course and most of the grossly observable symptoms disappear in 7-10 days.

The abstinence syndromes described above are those seen when the drugs are abruptly withdrawn. If, however, the drug is not withdrawn but simply displaced from its site of action by an antagonist such as naloxone, a withdrawal syndrome develops within a few minutes and reaches peak intensity within 30 minutes. Until the antagonist is eliminated, even large doses of the previously used opioid cannot suppress the syndrome; partial suppression is possible, but only by using extremely large doses of opioids, which may then produce respiratory depression when the action of the antagonist is over.

ACTIONS AND EFFECTS OF GENERAL DEPRESSANTS

Alcohol and barbiturates produce a primary and continuous depression of the CNS, hence the street term "downers." At low doses the effects are primarily the result of depression of the reticular system, the more primitive part of the brain concerned with the maintenance of consciousness and the control of responsible behavior. Since the impulses ascending from the reticular activating system to the cortex can be either excitatory or inhibitory, the behavioral responses that are observed will depend on which pathway is depressed initially.

GENERAL DEPRESSANTS

Ethyl alcohol Sedative-hypnotics

Barbiturates
Secobarbital
(Seconal^R)
Pentobarbital
(Nembutal^R)
Amobarbital
(Amytal^R)
Phenobarbital
(Luminal^R)

Minor tranquilizers

Meprobamate
(Miltown^R; Equanil^R, Meprospan^R;
Clordiazepoxide
(Librium^R)
Diazepam
(Valium^R)
Oxazepam
(Serax^R)

Glutethimide
(Doriden^R)
Methyprylon
(Nodular^R)
Chloral hydrate
Paraldehyde

General anesthetics

Ether
Nitrous Oxide

Miscellaneous agents

Glue
Paint thinners
Lacquer thinners

Thus the effects of low doses of alcohol and barbiturates are contingent on the degree of excitability of the CNS at the time of drug administration. This, in turn, depends on the environmental setting of drug use and the personality of the user.

Both the acute and the chronic effects of mild intoxication with barbiturates and related drugs resemble those of intoxication with alcohol. The intoxicated user shows a general sluggishness, difficulty in thinking, slowness of speech and comprehension, poor memory, faulty judgment, narrowed span of attention, emotional lability, and exaggeration of basic personality traits. Irritability, quarrelsomeness, and moroseness are common. Laughing or crying without provocation, untidiness in personal habits, hostile and paranoid ideas, and suicidal tendencies may also occur.

Neurological effects for barbiturates include thick, slurred speech, nystagmus, diplopia, strabismus, difficulty in accommodation, vertigo, ataxic gait, positive Romberg's sign, hypotonia, dysmetria, and decreased superficial reflexes.

Chronic intoxication with short acting barbiturates and related hypnotics results in both drug disposition and pharmacodynamic tolerance. It is also characteristic of adaptation to this class of agents that, while there may be considerable tolerance to the sedative and intoxicating effects, the lethal dose is not much greater in addicts than in normal individuals. Consequently, acute barbiturate or meprobamate poisoning may be accidentally or willfully superimposed on chronic intoxication at any time.

Marked similarities exist between the withdrawal syndromes with barbiturates and those seen with meprobamate, methaqualone (Quaaludes^R, Sopor^R, Parest^R, Ludes), and related drugs. It seems justified, therefore, to use the term general depressant withdrawal syndrome to refer to these symptoms. In its mildest form, the syndrome may consist exclusively of paroxysmal EEG abnormalities. Greater physical dependence results in tremulousness, anxiety, weakness, and insomnia. When the syndrome is severe, grand mal seizures and delirium may also occur.

Alcohol

Chronic use of alcohol results in an increased capacity to metabolize alcohol, which declines after several weeks of abstinence, so that abstinent alcoholics and normal individuals metabolize alcohol at about the same rate. Chronic use of alcohol also produces pharmacodynamic tolerance, so that a higher blood concentration is necessary to produce intoxication in tolerant than in normal individuals. Some alcoholics can perform well in difficult tasks when their blood alcohol concentrations about 200 mg. 100 ml., twice the value that is legally defined in most States as significant intoxication. However, as with barbiturates, there is no marked elevation of the lethal dose, and acute intoxication with respiratory depression may be superimposed on chronic alcoholic intoxication at any time.

Cross tolerance between alcohol and other drugs may be due to pharmacodynamic tolerance in the CNS or to more rapid metabolism, since alcohol use increases hepatic microsomal enzyme activity. Individuals tolerant to alcohol usually show cross tolerance to general anesthetics and other sedative-hypnotics.

The signs and symptoms of alcohol withdrawal syndrome are quite similar to those described for barbiturates with three distinct states: the tremulous syndrome, alcohol related seizure disorders, and delirium tremens. However, symptoms overlap from one state to another.

ACTIONS AND EFFECTS OF STIMULANTS

Moderate doses of amphetamines given orally to normal subjects commonly produce an elevation of mood, a sense of increased energy and alertness (hence the street term "uppers"), and decreased appetite; task performance that has been impaired by fatigue or boredom is improved. Some individuals may become anxious, irritable, or loquacious. A few may experience transient drowsiness, but insomnia is more common. As the dose is increased toward toxic levels, the effects of individual experiences and of environment become less significant.

CNS STIMULANTS

Amphetamines

Dextroamphetamine (Dexedrine^R)
Amphetamine (Benzedrine^R)
Methamphetamine (Methadrine^R, Desozyn^R)

Cocaine

Phenmetrazine (Preludin^R)

Diethylpropion (Tenuate^R, Tepanil^R)

Methylphenidate (Ritalin^R)

Mephentermine (Wyamine^R)

Caffeine

Nicotine

Chronic cocaine users describe the euphoric effects of cocaine in terms that are almost indistinguishable from those employed by amphetamine users. Cocaine also produces increased feelings of well being in depressed patients, and the toxic syndrome seen with cocaine seems clinically indistinguishable from that produced by amphetamines. In addition, animals exhibit similar patterns of cocaine and amphetamine self administration. The chewing of coca leaves is still common among the Peruvian Indians of the Andes. However, in the latter setting neither the intense preoccupation with drug use nor drug toxicity seems to occur. In short, although it is commonly assumed that the subjective effects of cocaine are more intense and its abuse potential more significant than those of amphetamines, reliable evidence for this assumption is difficult to obtain. However, the smoking of coca paste, with a high concentration of cocaine, is associated with a high degree of psychological dependency and physical effects.

Tolerance develops to the central effects of amphetamines, and the chronic user often increases the dose to continue to obtain the desired effect. Some users are able to take several hundred milligrams per day over prolonged periods. By suppressing appetite, high doses of amphetamine may foster ketosis. There is some limited evidence of mild tolerance developing to cocaine, but since cocaine is metabolized extremely quickly, such tolerance would disappear rapidly. Cross tolerance between the amphetamine like stimulants has been observed, but cross tolerance between cocaine and amphetamines has not been reported.

Tolerance to certain of the toxic effects on the CNS does not develop, and the toxic psychosis may occur after periods of weeks to months of continued amphetamine use. The fully developed toxic syndrome is characterized by vivid visual, auditory, and sometimes tactile hallucinations; picking and excoriation of the skin and delusions of parasitosis are not uncommon. There is also paranoid ideation, loosening of associations, and changes in affect occurring in association with a clear sensorium. It is often extremely difficult to differentiate this syndrome from a schizophrenic reaction.

For a long time it was believed that, except for drug craving, prolonged sleep, general fatigue, lassitude, and depression, there were no withdrawal symptoms from amphetamines and, therefore, no physical dependence. However, most observers now recognize the existence of a withdrawal syndrome following discontinuation of amphetamine like drugs, including prolonged sleep, lassitude, fatigue, hyperphagia, profound depression, suppression and then rebound of

REM (dream) sleep which may take the form of waking dreams or hallucinations.

The common patterns of social recreational cocaine use are quite different from those of the other stimulants. The intoxication is achieved by intranasal use (sniffing) and is characterized by euphoria and stimulation. Contemporary experimental use appears to be initiated by a curiosity about the drug. Use among social users is maintained by the social sharing of what users view as an "ideal" drug in terms of convenience, minimal bulk, rapid onset of effects, minimal duration of action with few side effects (the intoxication persists for about 30 minutes), and a high degree of safety. Cocaine is also viewed by users as an exotic drug which has appeal because of its rarity, high price, and historical and contemporary associations with popular and often high status folk heroes.

Some negative effects reported by recreational cocaine users include irritability, perceptual disturbance, nasal problems, and fatigue. When use is intensified, negative effects are more noticeable. Most such users do not develop signs of advanced toxic psychosis probably because they titrate or adjust their doses to circumvent adverse reactions.

HALLUCINOGENS (PSYCHEDELICS)

Hallucinogens are drugs that produce hallucinations. A word from the Latin hallucinari, means to dream or to wander in mind or attention. To the extent that drugs produce a wandering in mind or attention, most if not all psychoactive drugs at suitable doses may become hallucinogens. However, in both pharmacological and psychological tradition, hallucinogens have come to refer to those drugs which produce perceptual disturbances, mood changes, and thought disturbances. Most such drugs appear to act by stimulating the CNS. This leads to states of excitation and arousal that are coupled with a functional disorganization of the part of the brain that regulates incoming stimuli. Behaviorally, the result is an impairment of the discrimination normally based on external (real world) stimuli and a preoccupation with internal (unreal) stimuli.

HALLUCINOGENS

LSD-25 (lysergic acid diethylamide)

Dimethyltryptamine (DMT)

Psilocybin

Psilocin

Phencyclidine (PCP)

Diethyltryptamine (DET)

Dipropyltryptamine (DPT)

Dimethoxyphenylisopropylamine (DOM [STP])

Methylenedioxymphetamine (MDA)

The most popular theory of action for hallucinogens and the production of hallucinations assumes that normal memories are suppressed by a mechanism that acts as a gate to the flow of information from the outside. An input of new information inhibits the emergence and awareness of previous perceptions and processed information. If the input is decreased (as in sensory deprivation or a dark soundproof room) or impaired (as by hallucinogens) while awareness remains, such perceptions are released and may be experienced as hallucinations, dreams, fantasies, images, or unbidden thoughts.

Picture a man in his living room, standing at a closed window opposite his fireplace and looking out at the sunset. He is absorbed by the view of the outside world and does not visualize the interior of the room. As darkness falls outside, however, the images of the objects in the room behind him can be seen reflected dimly in the window. With the deepening of darkness the fire in the fireplace illuminates the room, and the man now sees a vivid reflection of the room, which appears to be outside the window. As the analogy is applied to

the perceptual release theory of hallucinations, the daylight (sensory input) is reduced while the interior illumination (the general level of arousal of the CNS) remains bright, so that images originating within the rooms of the brain may be perceived as though they came from outside the windows of the senses. (This analogy may be used as a basis for group discussion.)

Hallucinations from all hallucinogens, including Cannabis, appear to have two distinct stages. First geometric form constants or brightly patterned forms and colors move about in the visual field; second, complex images that consist of recognizable landscapes, scenes, people, familiar objects.

The first stage can be simulated by simply closing your eyes and lightly rubbing your eyelids, thereby increasing pressure on the eyeball. Many people, after doing this, experience the sensations of lights, colors, or geometric forms. Hallucinogens apparently intensify these perceptions but without the need for closed eyes or increased eye pressure. The second stage can be illustrated by recalling the last time you went swimming at the beach. Chances are you get a mental image or picture of yourself running along the beach and swimming in the ocean. Such images are fictitious, since you could not possibly have seen yourself running, but memory imagery often contains fleeting glimpses of oneself. And so it is with the second stage of hallucinations. Many people report seeing scenes of themselves or equally improbable images such as aerial perspectives and underwater views. Hallucinatory imagery, in this sense, is similar to dream imagery, but without the need for sleep—hence the term waking dreams. (This can be used for group discussion.)

Most descriptions of the psychedelic state include several major effects. There is heightened awareness of sensory input, often accompanied by an enhanced sense of clarity, but a diminished control over what is experienced. Frequently there is a feeling that one part of the self is a passive observer (a spectator ego) rather than an active organizing and directing force, while another part of the self participates and receives the vivid and unusual sensory experiences. The environment may be perceived as novel, often beautiful and harmonious. The attention of the user is turned inward, preempted by the seeming clarity and portentous quality of his own thinking processes. In this state the slightest sensation may take on profound meaning. Indeed, "meaningfulness" seems more important than what is meant and the "sense of truth" more significant than what is true. Commonly, there is a diminished capacity to differentiate the boundaries of one object from another and of the self from the environment. Associated with the loss of boundaries may be feelings of dissociation, union or fusion with objects and others, and a oneness with the universe.

Oral doses of LSD as low as 25 micrograms produce CNS effects in some individuals. At higher doses, LSD produces somatic effects largely sympathomimetic in nature, such as pupillary dilation, increase in blood pressure, tachycardia, hyperreflexia, tremor, nausea, pilo-erection, muscular weakness, and increased body temperature. Somatic symptoms from oral doses of approximately 100 micrograms are usually perceived within a few minutes and include dizziness, weakness, drowsiness, nausea, and paresthesias. They may be followed by a feeling of inner tension relieved by laughing or crying. Several feelings may coexist at the same time. Hallucinations may occur and afterimages are usually prolonged. Synesthesias, the overflow from one sensory modality to another, may occur. Colors are heard and sounds may be seen. Subjective time and space are also seriously altered. The loss of boundaries and the fear of fragmentation create a need for a structuring or supporting environment. Mood may be labile, shifting from depression to gaiety, from elation to fear. Tension and anxiety may mount and reach panic proportions. An average "trip" may last as long as 5-8 hours. Most effects begin to clear after 12 hours, including pupillary dilation, although the half life of the drug in humans is only about 3 hours.

A high degree of tolerance to the behavioral effects of LSD develops after three or four daily doses; sensitivity returns after a comparable drug free interval. Cross tolerance occurs between LSD, mescaline (from peyote cactus), and psilocybin, but none between LSD and amphetamines. Withdrawal phenomena are not seen after abrupt discontinuation. The most common adverse effect is a temporary episode of panic—a "bad trip." Such bad trips cannot be reliably prevented and have been experienced by users who had previous "good trips." Recurrences of drug effects or experiences without the drug, "flashbacks," are possible and occur most often within a few weeks after the initial drug experience.

Phencyclidine (PCP) has mixed excitatory, sedative, cataleptoid anesthetic, and hallucinatory properties. It is usually smoked, although it can be ingested, snuffed, and injected. The intoxication is marked by the experience of tranquilization, euphoria, inebriation, dissociation, and hallucinations (usually tactile and auditory). A number of untoward reactions are reported from users and these include restlessness, anxiety, paranoia, hyper-excitability, irritability, mental confusion, and partial amnesia. Larger doses can produce muscular tremors, convulsions, and seizures. Most deaths associated with PCP use are the result of drowning, whereby individuals become disoriented in the water. Similarly, deaths have also been reported resulting from violent behavior and suicides while individuals were under the influence of acute PCP induced psychotic states.

The most common effects of PCP are changes in body imagery, perceptual distortions, and feelings of apathy and estrangement. The experience often includes feelings of drowsiness, inability to verbalize, and feelings of "nothingness" or "emptiness." Reports of difficulty in thinking, poor concentration, and preoccupation with death are frequent. Contrary to popular belief, many individuals select PCP as their recreational drug of choice and enjoy the effects. Such individuals appear capable of limiting their use to moderate dose levels. Nonetheless, unpredictable episodes of panic occur and underlying basic personality traits, especially latent psychopathology, may be unmasked or triggered by either acute doses or patterns of chronic use.

ACTIONS AND EFFECTS OF CANNABIS

CANNABIS SATIVA (MARIHUANA)

Marihuana is the common name for the hemp plant, *Cannabis sativa*. The hemp plant *Cannabis Sativa* is the source of the ancient drug cannabis and its products variously referred to as hashish, charas, bhang, ganja, dagga, and marihuana. Only the female plant yields the active ingredients, most of which are concentrated in the flowers.

Historically, hemp fibers have been used for making textiles and rope, the seeds used for the oil they contain, and the leaves and flower parts consumed, usually smoked, for the intoxicating effects of the resin they secrete. In the Middle East and North Africa the resin is called hashish. In the United States, the term marihuana is used to refer to any part of the plant or its extract.

Cannabis

Marihuana

Hashish

Hashish Oil

The chemical in marihuana with the greatest mood altering effects is believed to be delta-9-tetrahydrocannabinol (THC), though the leaves and flowers contain many related chemicals. Marihuana appears as dried leaves and flower parts, with or without seeds and stems, ranges in color from greenish-brown to gold or dark brown, and may contain 0-5 percent THC.

Hashish is made by removing the strong-smelling resin secreted by the leaves and pressing it into cakes or slabs, and is usually more potent than marihuana, having up to 12 percent THC. Hashish oil, a highly refined form of marihuana, can contain up to 50 percent THC. Pure THC usually is not available because it is very expensive to produce and loses its potency rapidly upon exposure to air. Substances sold as THC usually turn out to be PCP, an animal tranquilizer, which can cause unpredictable reactions in many people.

Cannabis Effects & Syndromes

Physical Dependence

Degree unknown

Psychological Dependence

Moderate

Withdrawal

None

As with LSD, the subjective effects produced by marihuana are influenced by the state of mind, mood, and expectations of the user, and by the specific circumstances in which the drug is used.

More research is needed on marihuana and driving. Reports show that some sensory impairment can occur, but the degree to which this affects driving ability is unclear.

Although it is known that smoking marihuana irritates lung tissues, the extent to which tars from marihuana are capable of causing cancer is still under investigation. One report suggests that tobacco and marihuana smoke in combination may be more carcinogenic (cancer-producing) than either alone.

While there is no substantiated evidence to show that marihuana is harmful to fetal development or damaging to chromosomes, the use of all drugs by pregnant women should be kept to a minimum due to the lack of knowledge in this area.

A study done by the Reproductive Biology Research Foundation reported that a group of 20 young male marihuana smokers had a blood level of the male sex hormone testosterone that was 44 percent lower than in a non marihuana smoking group. This implies that smoking marihuana could disrupt the development of male characteristics in fetuses (when used by pregnant women) or could delay the onset of puberty (when used by pre-adolescent males). Neither of these possibilities has been studied, nor have the findings been confirmed by another group doing the same experiment.

Another report that marihuana interferes with the body's ability to resist disease has not been confirmed. Marihuana smokers do not seem to suffer a higher rate of disease than nonsmokers, and followup studies on this subject have conflicted with the original conclusions.

One study on the long term effects of marihuana use among farm laborers in Jamaica found no significant physical abnormalities in any of the heavy marihuana smokers, nor did the chromosomes of their offspring differ from those of nonusers.

A review of the wealth of available material on marihuana's psychological effects reveals common agreement that the use of small daily doses causes no lasting interference in psychological functioning. There is some evidence, however, that chronic users of very high daily doses are more likely to show signs of mental deterioration and abnormal behavior than the general population.

Whether prolonged use of marihuana in extremely high dosage is the cause or merely a possible symptom of psychological or emotional disturbance remains to be proven. Any drug --any substance--can be abused. A case of marihuana abuse, though, would seem to say much more about the condition of the abuser than the danger of the drug.

The effects of smoking depend, in large part, on the mood and expectations (set) of the user and the setting in which marihuana is used. Because the effects vary from user to user, marihuana is placed in a category by itself, not as a hallucinogen, stimulant, or depressant. Of course, the size of the dose taken is also important; some marihuana may produce no effect at all while a small amount of very potent marihuana may produce a marked reaction in some people.

The most consistent effects seem to be feelings of exhilaration and relaxation, and a minor increase in heart rate (which increases with the size of the dose). Other effects may include hilarity, drowsiness, dry mouth, and bloodshot eyes. Higher doses sometimes induce confusion or inability to concentrate, while, occasionally, some users experience rapid mood changes, depression, or panic. Reassurance and a calm environment can aid a person having an unpleasant experience with marihuana.

No short term or long term hazards from the occasional use of marihuana have been verified. However, we know little about how marihuana actually works in the body. No drug can be

Tolerance

Reverse Tolerance

considered safe for all people at all dosage levels and in all circumstances.

Some research suggests that the long term use of marihuana may result in psychological dependence or habituation (craving the intoxication), chronic lethargy, and, when smoked, lung damage. These hazards have not been shown to occur consistently, and it is not known what proportion of marihuana users may suffer from such effects.

Although it is known that many marihuana users also use other drugs, it is not known what proportion of them engage in polydrug use. It is also not known which drug other than alcohol is used first most often.

So far a number of States have chosen to reduce the penalties for simple possession of marihuana. Some of the reasons for this are: to reduce the overload of the court systems; that harsh penalties do not discourage marihuana use; and that marihuana is a mild intoxicant, and penalties for its private use should reflect the actual danger to society that use presents.

In some States, marihuana has been decriminalized. That is, the criminal penalties for its possession have been replaced with penalties similar to those for civil offenses such as parking violations. For example, instead of being sent to jail, a person apprehended with one ounce or less in his or her possession might be fined \$100. Decriminalization differs from legalization in that legalization would eliminate altogether penalties for possession, sale, or distribution, while decriminalization merely reduces the penalty for possession of marihuana.

One might expect that lessening penalties would invite further use of the drug. A study done in Oregon after the new law went into effect has shown that is not the case. It seems that most nonusers choose not to use the drug because of reasons other than its illegality.

CLOSING REMARKS: FUTURE SPECULATION

Psychopharmacologists have enjoyed speculating on their work, forecasting the development of memory pills, anti-aging pills, peace pills, and a 5¢ intoxicant that is both legal and safe, among others. Perhaps the best source of speculation can be found in the science fiction genre. Writer Robert Silverberg showed a shift in science fiction themes over the past decade from a view of drugs as destructive to a view of them as a means of growth. Aldous Huxley presented the drug soma as an instrument of repression in the totalitarian society of his 1932 classic *Brave New World*. However, in Huxley's 1962 *Island*, the drug *moksha* was described as "the reality-revealer, the truth-and-beauty pill."

In the future, we may speculate that drugs will be used to achieve euphoria, mind expansion, panacea, mind control, intelligence enhancement, sensation enhancement, reality testing, mind injury, and as a means of communication. Drugs are envisioned as therapy for major social and physical problems caused by technological alienation, tension, depression, overcrowding, boredom, and so forth. Some writers predict psychedelic wars, euphoric and escapist journeys from reality, new therapeutic drugs discovered on alien planets, and the use of drugs in outer space as tools for hibernation and longevity.

As UCLA psychopharmacologist Dr. R.K. Siegel sums it up:

From the flowering of the angiosperms millions of years ago, came the seeds of psychopharmacology. From *pharmakoi* to pharmacology; from better living through human sacrifice to better living through chemistry; from the first medical text on a Sumerian tablet from the end of the third millennium BC, which equated the word "live" with "intoxicate," to Huichol Indians in present-day Mexico who use peyote "to find our lives", from Homeric songs of drugs to the lyrics of the acid rock culture; from the romantic imagination of the Club des Haschisins to the speculative imagination of science fiction writer Doris Buck who envisioned pills to escape the stress of future living by mentally transporting the user to the Mesozoic Era as a dinosaur—the history of psychopharmacology, like all history, repeats itself.

Hopefully, we have learned something about the "magic" of drugs so that for us, unlike the dinosaurs, such events will not herald our extinction.

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MODULE V: UNDERSTANDING THE PHENOMENON OF SUBSTANCE ABUSE

PERSPECTIVE

The purpose of this module is to provide information on and to give participants new ways to understand the etiology of drug abuse. Generating motives and factors, patterns and cycles, and possible consequences of drug use will be examined and discussed.

CONTENTS

- o Overview of Module V (10 minutes)
- o Lecture/Discussion: Motives for Drug Use (25 minutes)
- o Lecture/Discussion: The Disease Model of Alcoholism (50 minutes)
- o Lecture/Discussion: Generating Factors of Drug Abuse (20 minutes)
- o Lecture/Discussion: Patterns and Consequences of Use (35 minutes)
- o Lecture/Discussion: Vicious Circles (20 minutes)
- o Lecture/Discussion: Narcotic Addiction and Alcoholism (30 minutes)
- o Lecture/Illustration: Tension Levels (35 minutes)
- o Structured Experience: Maintaining Drug Use Patterns (40 minutes)
- o Summary (5 minutes)

TOTAL TIME

4 hours 30 minutes

OBJECTIVES

1. Identify at least three reasons for using chemicals.
2. Identify one way in which motives for use change as drug use patterns develop.
3. Identify three factors which serve to maintain drug abuse patterns.
4. Identify at least three specific consequences of continued substance abuse.
5. Identify at least three commonalities of heroin and alcohol.
6. Identify at least one criterion for labeling alcoholism a disease.

Table One
Levels of Experience, Motives and Drug Abuse Patterns

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Most Probable Drugs of Abuse
A. Physical:		
Pertaining to the general feeling of physical well-being, and experience of the body.	1) Physical relaxation	1) Alcohol, tranquilizers (e.g., Librium, Valium, some over-the-counter sedatives, etc.), cannabis (marihuana and hashish)
	2) Relief from pain or anticipated prevention of sickness	2) Physician prescribed drugs, over-the-counter (OTC) drugs
	3) Increased physical energy, avoidance of fatigue	3) Stimulants (e.g., amphetamines, cocaine)
B. Sensory:		
Pertaining to the enhancement, exaggeration, or intensification of the physical senses.	1) Intensification/enrichment of sensory input (e.g., sound, sight, touch, etc.)	1) Psychedelics (e.g., LSD, Mescaline, Psilocybin, STP, etc.), cannabis, occasionally others
	2) Enhancement of sexual experience	2) Alcohol, cannabis, occasionally others
C. Emotional:		
Pertaining to psychological and emotional experience, especially that which occurs within a personality; includes those internal feelings set off by the environment.	1) Psychological escape or release from emotional agony	1) Any, especially narcotics and alcohol
	2) Reduction of normal tension, anxiety, conflict	2) Alcohol, barbiturates, OTC sedatives, tranquilizers, cannabis

TABLE ONE (Continued)

Level of Experience: Type of Gratification.	Corresponding Motives, Needs, Aspirations	Most Probable Drugs of Abuse
C. Emotional: (Continued)		
	3) Emotional relaxation	3) Alcohol, tranquilizers, cannabis
	4) Mood alteration	4) Stimulants, alcohol, cannabis
	5) Desire for psychological/emotional insight	5) Psychedelics, cannabis
	6) Avoidance of decision-making; pressure avoidance	6) Any
	7) Desire for privacy, aloneness	7) Alcohol, narcotics
	8) Rebellion; assertion of independence or defiance of authority	8) Any, especially illicit or forbidden substances
	9) Intensification of personal courage	9) Stimulants, alcohol
	10) Increase in self-esteem	10) Any, especially alcohol, stimulants and cannabis
D. Interpersonal:		
Pertaining to interpersonal relations, acceptance in groups, feelings of communication among individuals, opposite sex relationships, etc.	1) Gain in peer recognition, as in "showing off"	1) Any
	2) Gain in peer acceptance, as in behaving according to "peer pressure"	2) Any

TABLE ONE (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Most Probable Drugs of Abuse
D. Interpersonal: (Continued)		
	3) Relaxation of interpersonal inhibition; facilitation of social interaction	3) Any, especially alcohol and cannabis
	4) Reduction of anxiety-provoking intimacy	4) Narcotics, cannabis, etc.
	5) Reduction in barriers to communication; also solution of interpersonal problems	5) Psychedelics, cannabis, stimulants
	6) Escape/release from family difficulties	6) Any
	7) Escape/release from feelings of loneliness, alienation	7) Any
	8) Establishment of feeling of "community" or belonging with actual or reference group	8) Any
E. Mental-Intellectual:		
Pertaining to the experience of mental and intellectual processes, such as thoughts, ideas, problem-solving, etc.		
	1) Reduction of boredom	1) Any
	2) Curiosity	2) Any
	3) Enhancement of learning processes	3) Stimulants, sometimes psychedelics
	4) Problem-solving, especially technical	4) Stimulants, sometimes psychedelics

TABLE ONE (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Most Probable Drugs of Abuse
E. Mental-Intellectual: (Continued)		
	5) Research on one-self, one's cognitive processes	5) Psychedelics, cannabis
	6) Mental fatigue avoidance, as in studying	6) Stimulants
F. Creative-Aesthetic:		
Pertaining to artistic creativity, the performance or aesthetic appreciation or experience of creative works or artistic phenomena.		
	1) Increase in creative performance ability	1) Cannabis, stimulants, psychedelics
	2) Increase in enjoyment of artistic productions	2) Cannabis, alcohol, psychedelics
	3) Creation of subjective states of fantasy or imagination	3) Psychedelics, cannabis
G. Experiential:		
Pertaining to generalized personal experience of new, unusual or intensified states of experience or consciousness. Usually somewhat difficult to label.		
	1) Desire for "pure pleasure," "fun," recreation	1) Any
	2) Nonspecific changes in consciousness or awareness; e.g., any "high," intoxication for its own sake, desire for a change, any change, in experience	2) Any
	3) Unusual distortion of the sensorium, "freaky" perception and associated experience	3) Psychedelics, cannabis, sometimes stimulants or barbiturates

TABLE ONE (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Most Probable Drugs of Abuse
G. Experiential: (Continued)	4) Engagement—the need to be personally and totally involved in the moment, whatever the experience; counteracting apathy and ennui	4) Any, except perhaps tranquilizers
H. Stylistic: Pertaining to styles of behaviors and attitudes, especially cognitive styles, cultural styles and life-styles.	1) Need for identification through <i>imitation</i> , by youth of adults, by adults of youth, from media and subcultural "hero" figures; peer imitation 2) Automatic chemical reliance, — i.e., the culturally infused style of substance ingestion for any perceived deficiency 3) Desire for immediacy of achievement; impatience, intolerance of delay of gratification	1) Any 2) Any 3) Any; tranquilizers, volatile chemicals, OTC drugs less so

TABLE ONE (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Most Probable Drugs of Abuse
I. Social-Political: Pertaining to experiences generated by identification or involvement with social causes or political movements; also reaction to social and political inertia or change.	1) Identification with anti-establishment forces 2) Rebellion against disliked laws 3) Overcoming discouragement or desperation with social-political future 4) Induced change in mass consciousness, sometimes by attempted disruption of "the system"	1) Cannabis, psychedelics; sometimes any illicit substance 2) Cannabis, etc. 3) Any 4) Psychedelics
J. Philosophical: (General and Personal) Pertaining to the experience of a guiding philosophy of life, an explanation of the universe; also personal identity, including goals, purpose, and values.	1) Search for purpose and meaning in life 2) Organization of experience into a belief structure 3) Search for personal identity 4) Creation or change in values and philosophical lifestyle	1) Psychedelics, cannabis, others depending on peer group 2) Cannabis, psychedelics, stimulants 3) Psychedelics, cannabis (directly); other drugs (indirectly) 4) Any, especially cannabis and psychedelics

TABLE ONE (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Most Probable Drugs of Abuse
J. Philosophical: (General and Personal) (Continued)	5) Overcoming frustration from lack of meaningful vocation and work	5) Any
K. Spiritual-Mystical: Pertaining to experience with religious, spiritual or mystical characteristics, including intangible internal experiences with spiritual overtones or labeling.	1) Desire for intense spiritual experience, often labeled "higher levels of consciousness" 2) Desire for specific mystical states, e.g., "enlightenment," communication with God, etc. 3) Overcoming frustration with organized religion 4) Augmentation of unorthodox spiritual methodology, e.g., yoga, meditation	1) Psychedelics, cannabis 2) Psychedelics, cannabis 3) Psychedelics, cannabis 4) Psychedelics, cannabis
L. Miscellaneous: Pertaining to combinations of above levels: factors difficult to categorize in one schema.	1) Need for risk-taking, danger 2) Need for adventure, exploration 3) "Vacuum phenomenon," or "What else is there to do?"	1) Any, especially more dangerous drugs 2) Any 3) Any

TABLE ONE (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Most Probable Drugs of Abuse
L. Miscellaneous: (Continued)	4) Economic profit 5) Combination of motives, needs, aspirations—none of which individually would produce drug abuse, but does in a cluster 6) Need to react to extreme mental or physical discomfort; e.g., as in the maintenance of narcotic addiction, or in extreme psychological pain and/or confusion	4) Any illicit substance 5) Any 6) Any

DISEASE CONCEPT OF ALCOHOLISM

Gayle R. Hamilton

The question of whether or not alcoholism is a disease has a long history, beginning with the early proponents of the disease concept in Alcoholics Anonymous. In 1957, the AMA declared Alcoholism to be a disease on the following basis: that a disease has a known etiology, a known progression of symptoms that get worse over time, and a known outcome; and that alcoholism fits these criteria. The progression of symptoms is well known as a result of the early work of Jellinek on a sample population of 2,000 men. (However, there is still a gap in understanding how the progression of the disease may differ for women.) We do know the outcome of the disease if untreated: death. The remaining factor in defining alcoholism as a disease is more controversial, that of its etiology. The controversial nature of it deserves more attention as the underlying cause of alcoholism is the issue over which the disease concept is fought.

Major philosophical differences exist regarding etiology in this field. As already mentioned, our earlier models viewed etiology primarily as that of underlying psychological pathology, creating a need through alcohol to block out memories of personal experiences that were unmanageable. Then came a shift toward a physiological explanation and a consequent search for biochemical differences between alcoholics and nonalcoholics, as well as a search for a strong genetic X factor through familial studies. Because we have been unable to make a strong case for the genetic factor that can rule out the family modeling effect, or for biochemical differences, many have been unable to view alcoholism as a disease from inception and only find the disease model applicable when looking at the creation of other diseases that alcoholism brings about. There is at least widespread acceptance of the fact that, once the alcoholic reaches treatment, we are dealing with a disease. However, the total applicability of the disease model only on the basis of clear cut genetic evidence, is a restriction imposed in the case that is not applied to other diseases. If we look at the data available on the causes of heart disease, cancer, or diabetes, we have no more solid basis on which to label them as a disease than we do for alcoholism. In fact, these fields themselves are fraught with controversy over etiology. For each of these diseases, we do know that some people contract them whereas others do not. The American Heart Association now speaks in terms of "risk factors" for becoming a heart attack victim. The greater the number of risk factors in one's history (including physiological, social, and psychological factors), the greater one's overall risk for developing heart disease.

If we examine these risk factors for developing heart disease, some of which are still controversial, and then compare them with the risk factors that have been put forward for developing the disease of alcoholism, we then find two bodies of knowledge that are on a par with each other. The difference: one body of knowledge still clashes with a history of misunderstanding and negative value judgments.

In current theories of causation or risk factors for heart disease and alcoholism, the factors are divided into three parts: inherited or physiological aspects; social/environmental aspects; and psychological aspects.

The risk factors for heart disease are better known because of wide publicity in the past several years. Therefore, we shall review them briefly.

The physiological factors related to heart disease are: heart disease in the family prior to age 60; elevated cholesterol and triglycerides, thought to be related to diets high in animal fats and simple carbohydrates (sugars); high blood pressure; smoking, low level of exercise; and heavy drinking. Social risk factors are related to stressful and high achievement milieus, especially those that are competitive. The key psychological factor receiving attention today is that of the Type A personality described by Friedman and Roseman (Monat and Lazarus, 1977). This is an "action-emotion complex that can be observed in any person who is aggressively involved in a chronic, incessant struggle to achieve more and more in less and less time, and is

required to do so against the opposing efforts of other things or other persons.

Two issues are worthy of note here: 1) the number of physiological factors is larger than the social or psychological ones proposed to explain heart disease; and, 2) given recognition of being in a high risk category for heart disease, a person could reduce his/her risk by changing the diet, reducing the amount of smoking and drinking, by exercising, and by eliminating stress. We will return to these issues when we discuss the risk factors in alcoholism which are less well known and so deserve more attention.

RISK FACTORS

Genetic/Physiological Factors

A higher risk is known to be present in the children of alcoholic parents. In order to isolate the effects of the disrupted family environment, a study was done in Sweden (Alcohol and Health, June, 1978) focusing on 2,000 male adoptees. A significant correlation was found between diagnosed alcoholism among males who had been adopted-out and their biological parents, not their adoptive parents. A further study corroborated the finding that individuals raised apart from their biological parents were significantly more likely to have a drinking problem if their biological rather than surrogate parents had been alcoholic. This provides evidence that at least some portion of familial risk is a genetic rather than a modeling effect.

Evidence indicates that poor eating habits (diets low in nutrients) create a higher tolerance for alcohol — and thus a greater likelihood that one could drink enough alcohol to become addicted. Roger Williams, a Nobel Prize winner in biochemistry and researcher in the field of alcoholism for 20 years, takes this concept a step further: He suggests from his research that alcoholics inherit a greater need for some of the nutrients and that the absence of sufficient quantities of these nutrients creates a "loss of wisdom" in the brain regarding selection of foods, creating a preference for the simple carbohydrates, particularly alcohol. In his laboratory he has been able to create strains of alcohol prone mice, that is, mice who, given the choice, choose alcohol to the point of drinking alcoholically. He has also discovered that removing certain nutrients from the diets of mice can reverse their prior preference for glucose water over alcohol, creating a preference for alcohol. Although this research is still controversial among nutritionists, a growing number of persons in the alcohol field are finding his formulations credible and helpful in the treatment of alcoholics. Specifically, an increasing number of people now adhere to Williams' theory that the craving for alcohol can be significantly diminished by a megavitamin regimen that is specific for the alcoholic.

One of the factors almost always present in those persons who become alcoholic is a high tolerance, not only for alcohol, but for the larger class of depressants. This does not refer to the acquired tolerance that is visible, but, rather, a tolerance that is present prior to heavy drinking, i.e., the person who, in his or her early drinking days, could drink large quantities of alcohol without apparent effect — the "hollow leg" syndrome which is such a prized possession among men in our country. Rarely do persons who cannot "hold their liquor" become alcoholic. Dr. Gordon Bell, Director of the Donwood Institute in Toronto, examined the early medical records of alcoholics and nonalcoholics. What he found among the records of those who had had the usual tonsillectomy at age 6, was a high proportion of notations by the anesthesiologist in the records of those who later became alcoholic to the effect that large quantities of anesthesia had been required to "put the patient under" sufficiently for the operation. This indicates an early predisposition for handling large amounts of depressants. The impact of this high tolerance clearly is that this person has fewer clues that "it is time to stop drinking" and can, over time, drink sufficient quantities to become addicted. Those with less tolerance have more difficulty drinking sufficient quantities for this addiction to take place.

Another factor frequently associated with persons who become alcoholic is an ability to drink during early social drinking years without ill effect. That is, these persons do not experience the dreaded hangovers and sickness that others find an expected consequence of too much drinking. These are the persons (again, during early years) who function well the morning after an all night party during which heavy drinking took place.

Recent research on Orientals may give us some clue about this ability. Orientals are known for having a significantly lower alcoholism rate than Occidentals. Studies now suggest that this phenomenon is related to acetaldehyde toxicity. Acetaldehyde is a byproduct of alcohol

metabolism that is toxic to the system. The effect of Antabuse, for example, is to stop the metabolic change of acetaldehyde to acetylcholinase, so that, if drinking occurs, acetaldehyde builds up in the system and causes a toxic reaction. In Orientals, acetaldehyde builds up in the blood naturally, without Antabuse, causing an unpleasant flushing response. The authors of this research (Ewing, Rouse, and Aderhold) suggest that this occurs because of a faster initial rate of alcohol metabolism, probably due to the presence of an atypical form of the liver enzyme, alcohol dehydrogenase. If the reaction to drinking alcohol is unpleasant for them, it seems logical to assume that Orientals would be less prone to using this substance to excess. Other researchers have confirmed that this phenomenon exists in week old Oriental infants, making it less likely that this is due to social factors. What this research also indicates, however, is a possible reverse mechanism for the low early toxicity seen in those who become alcoholics. If drinking alcohol produces no unpleasant side effects, there is no reason to limit one's intake. If this low toxicity is added to a high tolerance for the drug, the risks for eventual addiction are clearly greater.

An additional factor which has few references in the literature, but which is known to the alcoholic, is the "memorable" feeling attached to drinking. In fact, most alcoholics can still remember that very first drink — the feelings were such that it was an unforgettable experience. Notice that we are mentioning this factor under physiological factors, not psychological factors. That is because the feeling seems to be independent of one's need for the feeling and simply does not happen to all drinkers. However, most people could probably find at least one kind of drug somewhere that had a similar effect. For example, I have found that codeine has that effect for me and have therefore decided not to take any medicines that contain it. What might happen to various members of a group if a new drug were to be introduced? Some members of the group might become sick; some might say "did you really give me anything?" Others might say "Wow, that was great; give me some more." In other words, for almost any mood-altering drug, a variety of reactions can be seen in the population. Clearly, if a drug produced a beautiful and memorable feeling, regardless of one's need for such a feeling, there is a greater likelihood that there would be a high motivation for continuing the drug.

To summarize the physiological aspects of alcoholism, we have looked at a number of factors which reflect some physiological predisposition to react in positive or negative ways to the drug — factors which motivate one to move toward the drug or away from it. Returning to our physiological factors in heart disease, a major difference now apparent is that with forewarning at least four of the heart disease factors can be altered by the person: diet, smoking, drinking, and exercise level. However, the factors we are discussing connected with excessive drinking, with the exception of one, are internal factors which simply exist: they cannot be altered. The only control an alcoholic might have over his body susceptibility to excessive alcohol intake is in the area of preventive diet. An abundance of these factors without such an awareness then can easily lead to problems.

Social/Environmental Aspects

The social and environmental aspects of drinking receive more publicity than the physiological ones. The first factor, heavy drinking or total abstinence models in the family, does not refer to the inherited factor, but rather to the effects of family patterns on the learned behavior of the child. If the child sees no responsible drinking patterns in the parents, no learning occurs on management of the effects of alcohol. The risk in abstinence is almost equal to the heavy drinking models. Again, abstinence models provide no learning mechanism for appropriate drinking. So, what we find is that those who come from an abstinent family and then pick up a drink at some point have a high risk of inappropriate drinking. Along with inadequate knowledge of appropriate drinking is usually a sense of guilt. Often abstinent families do not drink because of the attitude that the substance itself is "bad" and that drinking is immoral. Some persons in the field maintain that, without guilt, we would have no drinking problem in this country.

The early work of Child, Bacon, and Barry on cross cultural differences in drinking led to an isolation of other social factors that appear to be important in heavy versus responsible drinking. The basic conclusion from cross cultural and subcultural studies is that the best environment for preventing development of alcoholism may be described as follows: alcohol is introduced early in life, in the context of social and festive occasions; it is associated with meals; and there is cultural consistency regarding the use of alcohol. That is, abusive drinking is less when there are positive cultural attitudes toward drinking and strong negative attitudes toward drunkenness. In culture the high mobility and wide range of attitudes

toward drinking work against this. It is therefore very difficult to achieve consistency regarding alcohol use during one's lifetime in this culture.

Peer pressures toward drinking also add to the creation of drinking problems. This is more true of men in this culture than of women, since drinking has long been viewed as unfeminine. Men, however, frequently maintain their macho image through heavy drinking. Additionally, many social and work functions are so intertwined with drinking that it becomes inconceivable to engage in them without drinking. Those who have tried it also know the discomfort it creates in others around them and the pressures of the group for the abstainer to participate.

In summary, our cultural practices, attitudinal differences, and high mobility work against maintenance of those conditions found to reduce the risks associated with heavy drinking.

Psychological Aspects

As we have mentioned in other parts of this training, there is a long history of searching for psychological causes of alcoholism. However, the summation of our efforts in this area is very simple: we have not been able to isolate any psychological factors that are more associated with alcoholics than with nonalcoholics. Researchers at the Menninger Clinic concluded that there is more variability on personality dimensions within the alcoholic population than between alcoholics and nonalcoholics. They concluded that the apparent similarities among alcoholics in fact result from a common set of defenses used to maintain drinking behavior: denial; rationalization; intellectualization; and so forth.

The only way in which the psychological factors can be dealt with at this point in terms of causation of alcoholism is in a very general way: those who have some psychological (or physical) discomfort which alcohol helps to alleviate, are more likely to continue heavy drinking to the point of addiction. That is, for some people, alcohol helps lessen shyness, bolster courage, or in general, contributes to the achievement of something impossible for them while sober.

Now let us examine the interaction of the physiological and psychological factors as conceptualized by Dr. Gordon Bell. Let's say that we have three groups of people: Group A experiences heightened pleasure (possibly in the form of diminished discomfort) when drinking and suffers no ill effects after drinking; Group B experiences heightened pleasure while drinking, but suffers for it afterwards; and Group C does not experience heightened pleasure and in fact is uncomfortable with drinking and suffers later in the form of sickness and hangovers. Most alcoholics come from Group A. Some alcoholics come from Group B. Essentially, those who do have psychological discomfort which they would like to avoid, and for whom alcohol does temporarily help, may work to increase their tolerance and put up with the later discomfort to achieve temporary relief. Group C does not produce alcoholics.

The range of human experience with alcohol is broader than represented here. The grouping according to response is merely to illustrate that, without some physiological ability to achieve pleasure from alcohol and avoid the painful side effects, one is not going to drink sufficient quantities to become addicted. On the other hand, some people, perhaps those with all of the physiological risk factors described, have no reason to avoid drinking large quantities. Since alcohol is an addictive substance, anyone who drinks enough can become addicted. The differences is that some can, and some cannot, drink enough.

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NOTES

¹By the time they seek treatment, most alcoholics are experiencing debilitating sickness and hangovers.

ALCOHOL PHARMACOLOGY

Alcohol produces a dual effect on the body: a primary depressant effect that lasts a relatively short time, and a weaker agitation of the central nervous system that persists about six times as long as the depressant effect. Awareness of these two effects may depend upon the degree of excitability of the central nervous system at the time of drug administration. This, in turn, depends on the environmental setting of drug use and on the personality of the user.

In a quiet, nonsocial environment, the ascending excitatory influence may be impaired, and the sedation and drowsiness produced by the drugs are then equated readily with depression of the central nervous system.

In a social setting, where there is a great deal of sensory input, the cortex may be freed from its integrating control by depression of the ascending reticular system. Under these circumstances the effects of low doses of drug are perceived as stimulation, whereas in fact they are also the result of release from inhibition (secondary to depression) of those pathways of the reticular activating system that inhibit specific areas of the cortex. The paradoxical excitement—the talkativeness, the heightened vivacity, the increased self confidence, and the general loss of self restraint—maybe likened to the situation of an automobile parked on an incline being suddenly set in motion by releasing the brake. There is also loss of mental acuity and judgment and impaired motor coordination.

As the dose is increased, and during chronic intoxication, these agents produce more of the same effects. There may be slurred speech, staggering, loss of emotional control, stupor from which arousal is difficult, severe respiratory depression, and, finally, coma and death.

With prolonged or chronic drinking, awareness of the dual effects depends upon the time that elapses between drinks. Since the depressant effects are greater, that effect will be marked for the first two hours after the last drink. However, as the time since the last drink increases, awareness of the longer lasting agitation effect becomes dominant. It is this effect which eventually leads to morning drinking to calm the drinker. "The morning after" hangover and shakiness is due to the residual central nervous system agitation. This may be calmed only by drinking to counterbalance the agitation with the more dominant depressant effect. Thus, the vicious circle is in motion.

Withdrawal symptoms eventually include restlessness, shakiness, confusion, hyperventilation, hallucination, and convulsions. The chronic loss of calcium and magnesium, general malnutrition, and dehydration contribute to these symptoms. Symptoms are usually far more dangerous than those after withdrawal from the opiates or other agents to which physical dependence may be developed.

Severity of the symptoms depends on the length of drug abuse and the degree of intoxication. In the typical course of withdrawal, symptoms begin within the first 24 hours after discontinuance of the drug, reach their peak intensity within two or three days, but are self limiting and disappear within one to two weeks. During the first day of withdrawal there may be headaches, anxiety, involuntary twitching of muscles, tremor of hands, weakness, insomnia, and nausea.

During the next 48 hours the symptoms become progressively more intense. There may be a

precipitous fall in blood pressure; fever; delirium characterized by disorientation, delusions and vivid visual hallucinations; and convulsions similar to those exhibited in grand mal epileptic seizures. The fever, delirium, and convulsions are the most serious symptom and have proved fatal in a number of instances.

Aside from withdrawal itself, alcohol has a pervasive effect on the body from its point of entry through the gastrointestinal tract, the liver, and the bloodstream, the brain and nervous system, heart, muscles, and endocrine system. Alcohol, unlike other drugs, can be utilized by the body as a source of energy. This supply of calories often suppresses appetite, leading to dietary deficiencies that may be responsible in part for the pathologic conditions seen in chronic alcoholism. Early alcoholic drinking may produce the following specific medical conditions:

- Increase in blood pressure
- Constance in flushing of facial edema
- Increase in blood alcohol level
- Anemia
- Loss of control of eye muscles
- Gastritis
- Pancreatitis
- Increased susceptibility to infections
- Cardiac arrhythmia
- Peripheral neuritis
- Fatty liver
- Hypoglycemia
- Withdrawal signs
- Cancer of the tongue, mouth or pharynx, hypopharynx, esophagus and liver

Chronic alcohol drinking produces even more severe conditions, some of which may be irreversible, such as:

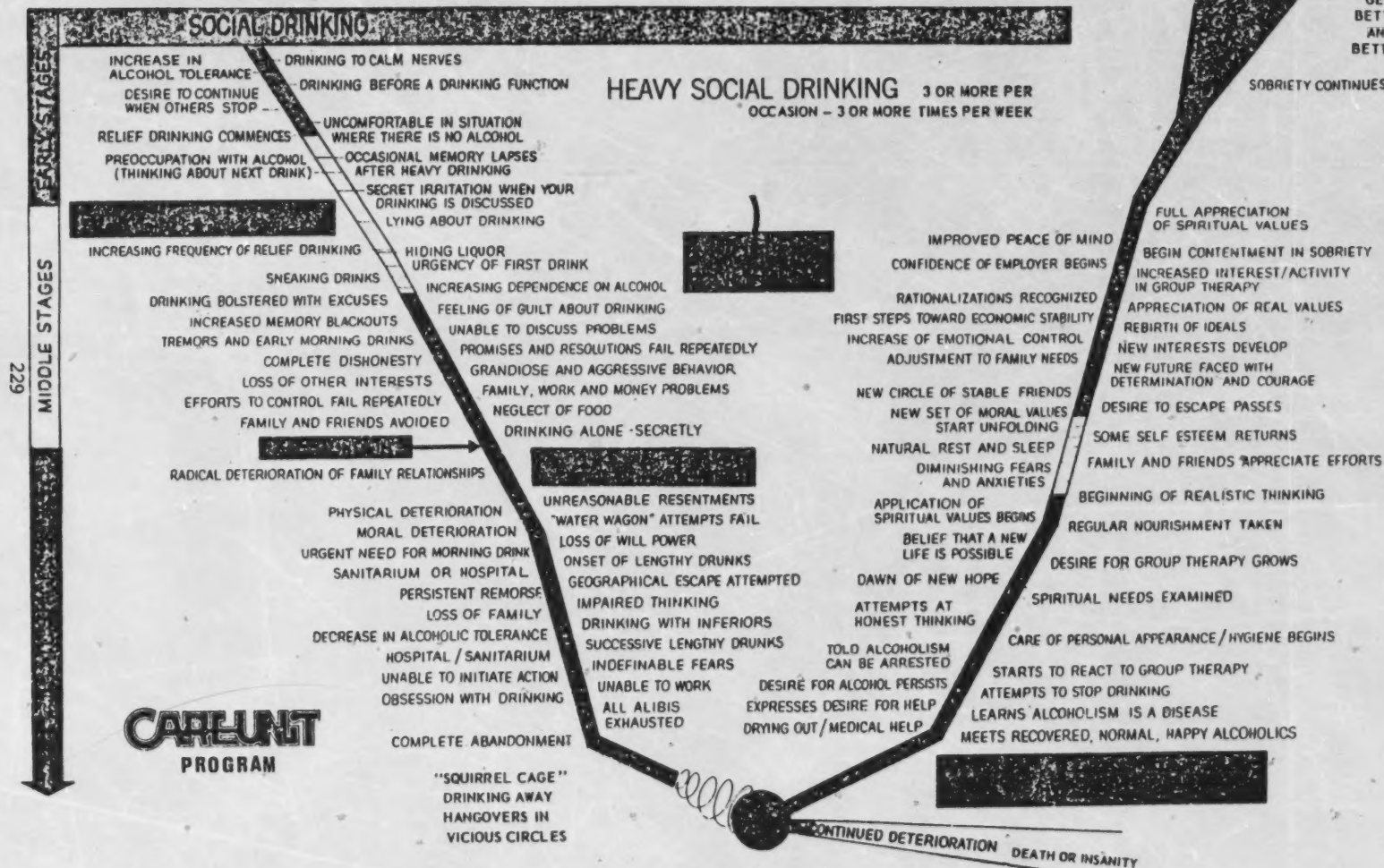
- liver damage
- Korsokoff syndrome (vitamin B. deficiency)
- Cerebral atrophy
- brain damage
- cardiomyopathy

These specific medical conditions show how extensive and pervasive the effects of heavy drinking are to health. The extent of damage is shown by the finding that the brains of alcoholics after death are so soft, pulpy, and deteriorated that they are not suitable for dissection by medical students who need to study brain structure.

DISEASE of ALCOHOLISM

PROGRESSION →

RECOVERY
LIFE GETS BETTER AND BETTER



COMPLEXITY OF THE DEPENDENCE PROBLEM
INTERACTION OF BIOLOGICAL WITH PSYCHOGENIC AND SOCIOGENIC FACTORS*

by
W. K. Van Dijk

*In H. M. Van Borg, ed., *Biochemical and Pharmacological Aspects of Drug Use*. Haarlem, The Netherlands: DeErven F. Bohn, 1972, 6-17.

COMPLEXITY OF THE DEPENDENCE PROBLEM

Interaction of Biological with Psychogenic and Sociogenic Factors

by

W. K. Van Dijk

INTRODUCTION

It should be clear from the start that the following considerations are presented by a clinical psychiatrist. This means that that viewpoint from which the dependence theme will be inspected is largely determined by experiences with the treatment and rehabilitation of individuals who have...problems of abuse of drugs, and with the prevention of relapse. The task of the clinical psychiatrist is to examine the behaviour of the patient who seeks his help, or who is sent to him for assessment and treatment. The clinical psychiatrist performs his examination on the basis of, i.e., the following questions: 1. Which aspects or functions or elements in the behaviour are abnormal or disturbed? (First step of diagnosis, i.e., description.) 2. Which factors have brought these disturbances about? (Second step of diagnosis, i.e. etiological analysis.) 3. Which measures can be taken to cure the disturbance? (Therapy.) 4. What can be done to rehabilitate the patient? (Rehabilitation or Resocialisation.) 5. What can be done to prohibit a progression or relapse? (Prevention.)

In this discussion we shall confine ourselves to the description and etiology of dependence.

Regarding these aspects of drug dependence a multitude of facts, hypotheses, and theories have been brought forward from different fields, ranging from biochemistry, neurophysiology and pharmacology, psychology, psychiatry, sociology, and economy to jurisprudence and theology. On the other hand, many problems, sometimes of a crucial nature, still remain unsolved. The situation being as it is, it appears useful to try to present some points of view or models which may help to bring some order and to probe the possibilities for research, all the time keeping an open eye for new discoveries and fresh hypotheses.

DESCRIPTION

A. The state of dependence as a behavioural syndrome is

characterized by the fact that the person concerned cannot live without the drug he is dependent on.

This inability may take forms and grades which depend, among other things, on the type of drug.

With alcohol we sometimes observe that for some reason the alcoholic is able to abstain for days or weeks or even months; in the case of heroin, however, the ability to stop taking the drug is restricted to a few hours only. In either case, there arises after a shorter or longer interval, more or less spontaneously, a state of inner tension in which the dependent person feels an uncontrollable craving for the drug.

Apart from the type of drug used, these differences are influenced by the personality structure, social factors (including treatment), and probably also by the duration of the state of dependence. In some cases dependence is consistent with a more or less normal way of life; in others it is not. In the latter case the clinical term "addiction" may be used. *It should be noted that this definition of "dependence" and "addiction" does not include nor exclude physiological mechanisms.** The terms are used in a descriptive way, to characterize behaviour or ways of living.

B. It is useful not to look at *dependence*, including *addiction*, as a separate entity only, but to keep in mind that it must be regarded as the final stage of a process.

We may roughly sketch the natural history of the use of a drug's leading to *dependence* as follows:

1. The first stage is the *contact* with the drug, which may take place in a medical or a non-medical setting. After one or more *contacts* the process may come to a halt, or it may develop into the second stage, that of *experimentation*.

2. The stage of *experimentation* may assume different forms as to...picture, intensity, and duration, depending on several factors which will be discussed later. After some time has elapsed, the second stage may come to an end, or it may develop into a stage of *socially tolerated use* which from a psychiatric point of view may be called an *integrated mode of use*, or it may lead to the stage of *excessive use*.

3. The stage of *excessive use* often carries several risks and damages which may be of a physical, psychical, or social

*Editor's italics.

(interpersonal, economic, legal, moral, etc.) nature. *What is to be regarded as a risk or a damage depends largely on the prevailing social habits and customs, on the economic and historical situation, etc.*⁴ The psychiatrist is inclined to speak of excessive use, when there is the threat of an impairment of social, psychological, or physical functioning; certainly he will label this stage of the process as such, if actual damage in one field or other can be demonstrated as being related to the drug habit.

The stage of *excessive use* as part of a process should be distinguished from *incidental excessive use* and from *periodical excessive use* caused by psychiatric factors like recurring depression or epilepsy. It is a more or less continuous state.

4. In a percentage of cases, this phase may develop into the syndrome of addiction, which is a more or less terminal state. On the other hand, stopping the *excessive use*, or a return to *integrated use*, may occur.

The development of the use of a drug leading to dependence is recapitulated in Table I.

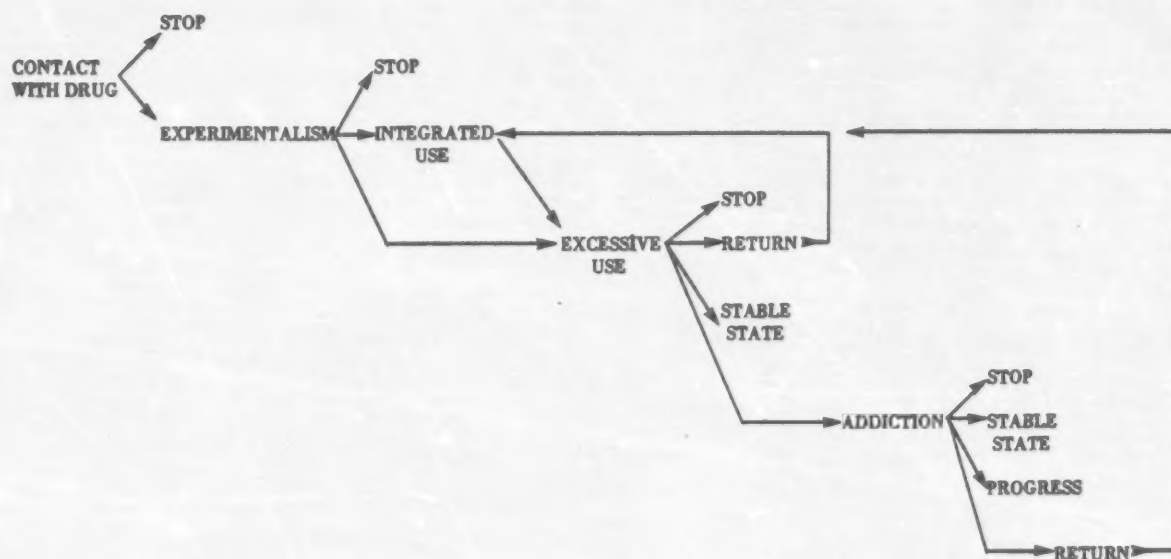


TABLE I. STAGES IN PROCESS OF DRUG USE

*Editor's italics.

Addiction, which is the extreme form of *dependence* and which may be considered an illness, is a syndrome showing three main features:

a. It is damaging to the individual.

b. It is relatively autonomous. By this we mean that, whatever complex interplay of factors may have led to the phases of *excessive use* and *addiction*, once the boundary has been passed, a relatively stable state has come into being, which is more or less independent of the primary generating causes and conditions.

As for the treatment, relative autonomy means that in the majority of cases merely removing the initiating factors is not sufficient; special measures have to be taken, aiming at treating the *addiction syndrome* as such.

c. The *addiction syndrome* is self-perpetuating, spontaneous recovery being exceptional. On the contrary, if no help is offered, there is a tendency to further deterioration.

The courses the process can take in the individual case, the successive stages, and the final state show great variety, depending on the drug involved, the personality structure of the user, and the social context.

During the development of *dependence* several changes in the features of the stages of drug use occur. They may be described as in *Table 2*.

EARLIER PHASES (CONTACT, EXPERIMENTATION)	LATER PHASES (EXCESSIVE USE, ADDICTION)
More Freedom	Lack of Freedom
Less Risks and Damage	More Damage
Abuse Possible	Abuse Present
No Illness	State of Illness
Operating Factors Linear	Vicious Circles

TABLE 2. SOME SHIFTS IN CHARACTERISTICS OF STAGES OF DRUG USE

ETIOLOGY

Generating Factors

Extensive research has so far failed to show one simple cause which initiates the process of pathological use of drugs. On the contrary, both research findings and clinical work have made it clear that a complexity of causes and conditions give rise to the drug taking process.

We may summarize these factors as follows:

A. The *pharmacological* effects of the drug.

We may roughly locate the various drugs on a scale. On one side are the drugs with a strong addictive action (e.g. heroin, morphine, palfium); on the other are those to which an addictive power can scarcely be ascribed (e.g. aspirin, chlorpromazine, laxatives, or even petrol or vinegar). The addictive property of a drug depends on the somatic and psychic influences it exercises; in what way these are connected with the chemical structure is largely unknown. All of the addictive drugs have an influence on the feeling or mode of experience of the user.

For practical reasons we may divide them in sedating, stimulating, and psychedelic effects.

In all cases the drug is taken for its desired action. What in a given case is regarded as desired depends on the following factors:

B. The *personal factors* of the user.

In this dimension, too, we can make a scale with at its extremes persons who have a strong disposition toward *excessive use* and *addiction*, and those who are scarcely susceptible to it.

The former type can be seen to incline toward a dysfunctional *use* even of non- or hardly addictive drugs. Often with these persons a triad of features can be found:

1. Feelings of discomfort, tension, and displeasure may easily arise in them, also in case of mild frustrations, or even "spontaneously;"
2. These unpleasant feelings are very intense, or nearly unbearable;
3. The absence of possibilities to master, sublimate, and canalize such feelings.

The drug may be used to seek relief from the state of tension. To the group of persons not disposed toward *abuse* belong those in our culture who are impervious to alcohol, tobacco, tea, coffee, sweets, etc.

The personal factors should not be considered to form an invariable and stable system. Age, for example, is an important modifying factor: during puberty and adolescence, the risk appears to be increased.

Physical and psychiatric diseases with a debilitating influence should also be kept in mind as predisposing factors.

C. The *social meaning and value* of a drug and of drug taking.

Along this dimension, factors like the drug's being accepted in the culture or being considered alien to it play a role (the acceptance or rejection of alcohol or opiates in some Eastern and Western cultures).

Futhermore, the ritualization of the use of a drug, and the social norms, habits, and sanctions governing it including the legal regulations and jurisdiction; the load of sensation and thrill; the significance of a drug as a symbol of sturdy, competitive aggressive maculinity; or of a non-committal, non-aggressive attitude and mode of behaviour; the function of a drug or of using drugs as a symbol and a signifier of differences between groups, classes, and generations (to the group the user is the insider and the non-user is the outsider, while, conversely the user is the outsider in society in general); the function of a drug or of drug taking as a symbol of a progressive, non-authoritarian attitude, etc.

The social meaning of a drug and of drug taking is not only important as an incentive to take drugs, but also as a factor which may have an important influence on the effect of a drug. Here lies a connection with the general pharmacological problem of the placebo-effect, and of the difference between reactors and non-reactors.

D. The *environmental* influences on the user.

These can be divided into positive factors, leading to a favorable reaction of the person, and negative ones causing too great, too small, or inadequate stress....The same social situation and influence may be experienced by one person as a positive stimulus, and as too heavy a burden by another, which he may try to get rid of by means of the use of drugs.

In each individual case the drug-using process starts and develops from the interplay of factors from the dimensions mentioned above. Table 3 summarizes the dimensions.

1. PHARMACOLOGICAL PROPERTIES:

Strongly addictive drugs
(e.g., morphine, heroin)

Non-addictive drugs
(e.g., aspirin, laxatives, vinegar)

2. PERSONAL FACTORS:

Strongly disposition
to excessive use

No disposition
to excessive use

3. SOCIAL MEANING AND VALUE:

Drug accepted or rejected, ritualization,
social norms and sanctions (including legal
regulations, police actions and jurisdiction),
symbolic significance

4. ENVIRONMENTAL INFLUENCES:

Negative factors

Positive factors

TABLE 3. OPERATING FACTORS IN THE ETIOLOGY OF THE PROCESS OF DRUG USE

Factors Maintaining the Process After Contact with the Drug

After this brief discussion of the generating factors of the drug-using process, some short remarks will be made about the factors maintaining the process after contact with the drug has been made. This pertains to the question [of] why dependence continues, inspite of its unfavorable effects. We can study these factors best in the case of addiction with its self-perpetuating character.

There is as yet no adequate explanation for this remarkable feature of addiction. In my opinion, however, there are strong indications that an important pathogenic part is played by the mechanism of vicious circles,...in which a cause generates a result which in its turn maintains or reinforces the initial cause.

In addiction we may distinguish four vicious circles.

A. The pharmacological vicious circle

Pharmacological investigations have shown that the repeated use of drugs may cause a change in the metabolism of a person. This change may manifest itself in the phenomenon of *tolerance* (after prolonged use, an increase of the dose is needed to attain the same effect) and the *withdrawal syndrome* (a sudden interruption may cause unpleasant and even serious physical and psychological signs and symptoms).

In some types of *dependence*, the persistent need for the drug and the inclination to increase the dose may be explained on account of these phenomena. Continuation of the use, however, maintains the metabolic change, which in its turn is responsible for the need to use the drug again. Cause and effect influence each other by means of pharmacological mechanisms. This is the reason why we speak of a pharmacological vicious circle, which is illustrated in Table 4.

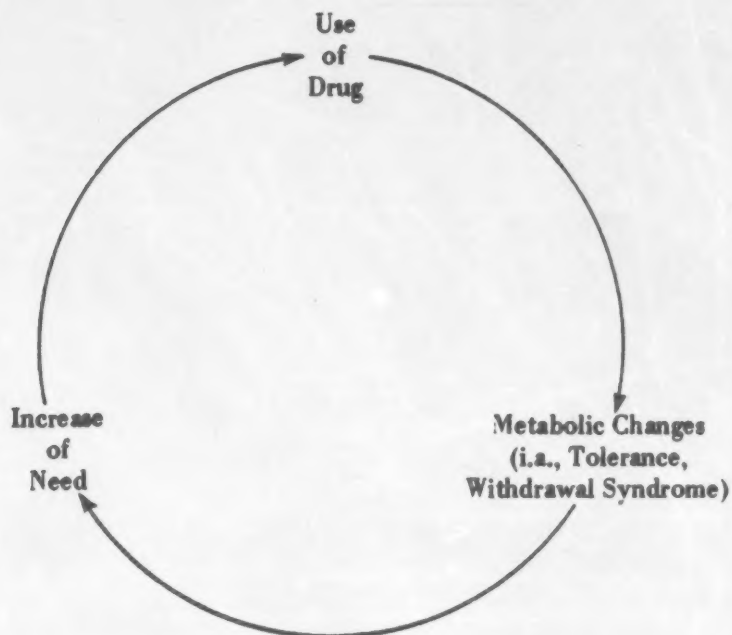


TABLE 4. PHARMACOLOGICAL VICIOUS CIRCLE

B. *The cerebro-ego-weakening vicious circle*

In some cases the quantitatively and qualitatively *excessive use* of a drug may have a direct damaging influence on those cerebral functions that form the basis for regulation and integration on the behavioral level.

The outcome is a weakening of the strength of the ego. This means that the personal psychical powers to regulate and control the use are reduced. This, in its turn, implies that the motives leading to the use of the drug get the opportunity to assert themselves more easily. Because of this mutual relationship of cause and effect, one can also speak of a vicious circle. See Table 5.

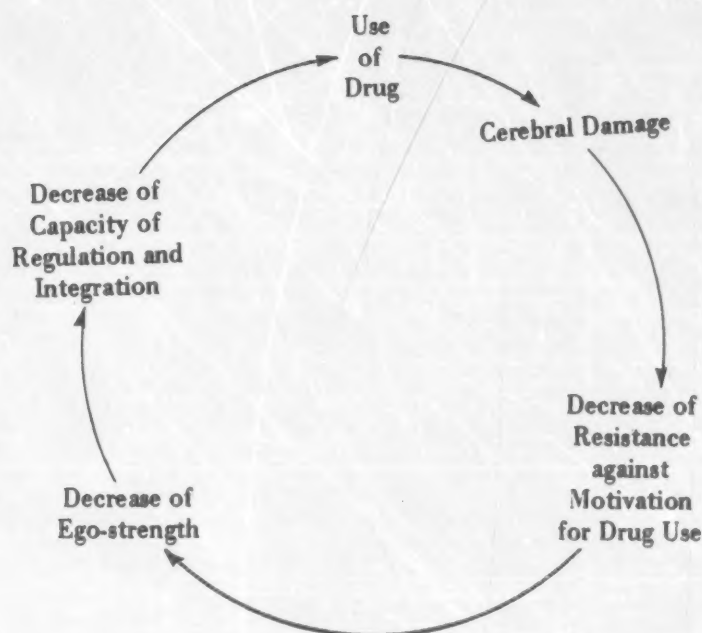


TABLE 5. CERE BRO-EGO-WEAKENING VICIOUS CIRCLE

C. The psychic vicious circle

This refers to the effects of *dysfunctional use* in the mental field. In this case feelings of guilt and shame, the unpleasant notion that decreasing or abstaining from its use would be better, and the disagreeable perspective of the future, etc., play an important role. The easiest and most effective way to get rid of these annoying feelings is to take the drug, and in this way a vicious circle is started.

Moreover, we may point at the *infantomimetic effect* of the use of drugs. (Levy [1968] described the infantomimetic effect of alcohol.) By this is meant a regression to a more infantile form of behavior with an increase in the affective and instinctive aspects of behavior, and a decrease in the controlling and synthetic functions of the ego. Describing this process in psychoanalytical terms, we may ascertain a shift from the *reality-principle* and an increasing relative predominance of the primary over the secondary process. Since cause and effect influence each other to and fro, we may assess again a vicious circle in the psychic level. See Table 6.

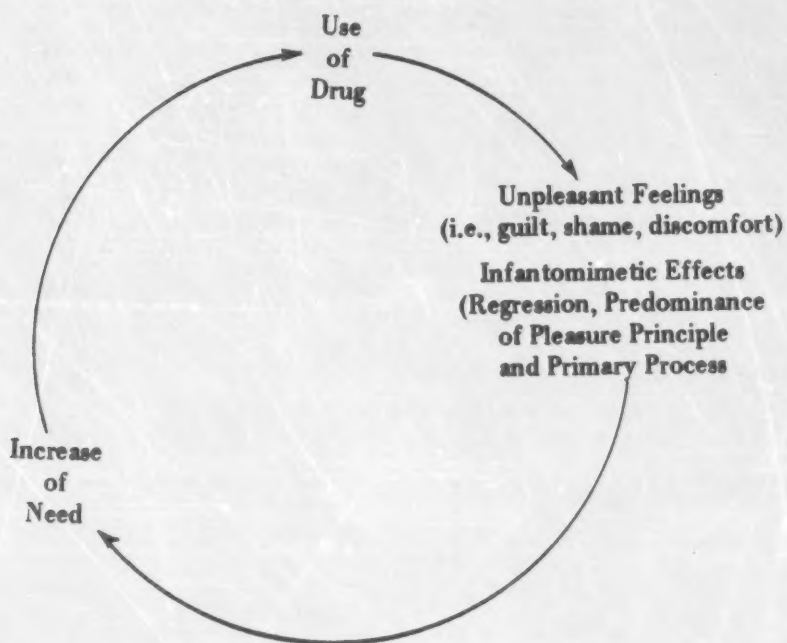


TABLE 6. PSYCHIC VICIOUS CIRCLE

D. *The social vicious circle*

This circular process is based on the fact that drug addiction has social consequences, which in their turn reinforce the use of drugs. The social sequelae may be described as a dysfunction, and finally, a disintegration within the groups the addict is (or was) functioning in.

This process has harmful effects on the addict. We may only mention the reproaches of the spouse and other members of the family, the quarrels arising, the disdain and withdrawal of friends and acquaintances, the tensions and conflicts in the occupational sphere and, finally, the dropping out from society.

This isolation and rejection engender in the subject negative feelings, which foster an attitude of "let oneself go into the state of being an addict." This means a fixation of the role behaviour that goes with it, and a reinforcement of the identification with a drug-using subculture.

The social vicious circle is illustrated in *Table 7*.

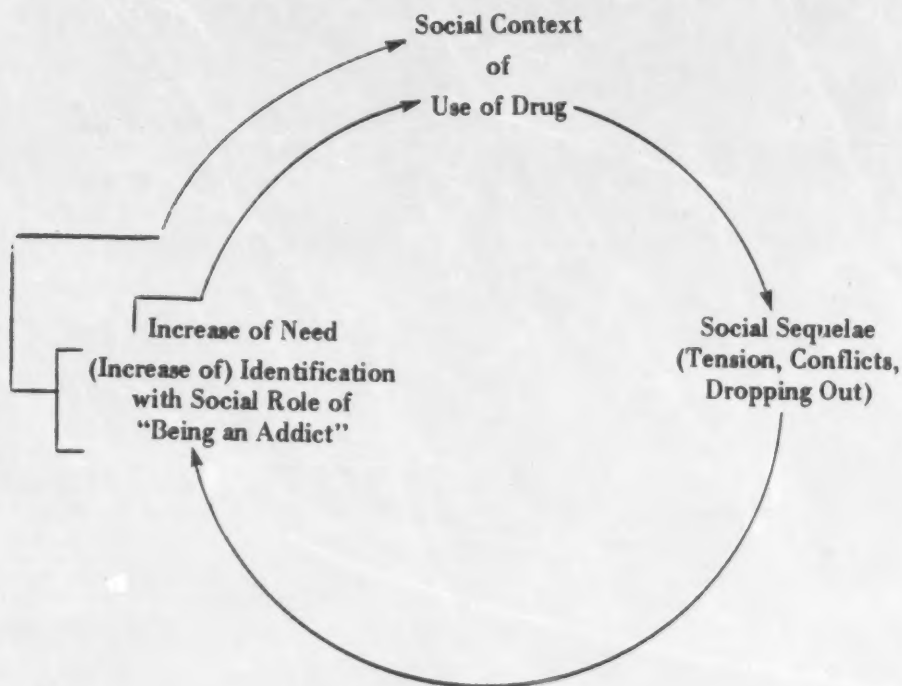


TABLE 7. SOCIAL VICIOUS CIRCLE

GENERAL REMARKS

After this brief discussion of the principle of the four vicious circles, some general remarks may be added.

1. In some drugs (e.g., alcohol) all vicious circles mentioned are present; whereas in others, they are not. In marihuana for instance, the pharmacological and the cerebro-ego-weakening circuits are lacking....

2. The original pharmacological, cerebral, psychological, and social factors which give rise to the vicious circles are by no means restricted to the state of addiction only. They may already be demonstrated in the earlier stages of the process of drug use.

What we can see, however, is that the more the process moves to the stage of *excessive use*, the more the generating factors are becoming circular. This shift from a linear to a circular mechanism is connected with a developing dis-equilibrium between the operating factor on the one hand, and the capacity to keep up with this operating factor or its effects on the other.

Finally, when a shift has taken place from linear to circular and when the quantitative influence of the circuits has risen to a critical level, the *addictive state* has been attained and will be maintained.

3. In this progress from more linear to more circular action, the factors mentioned do not work separately. In earlier stages they may either cooperate and intensify or, conversely, counterbalance and reduce each other. In the later phases, they mostly reinforce each other, which explains the relative autonomy and the self-perpetuating nature of addiction.

4. An example of the fact that the factors involved may counterbalance each other may be found in the therapeutic field. It is often possible in the process of treatment to switch over a heroin addict to methadone and to keep the patient on a stable dose of it by supportive psychic and social measures. In some cases the patients themselves try to decrease their dosage; whereas, in a non-medical setting methadone gives rise to *addiction* with increasing doses in most cases. Here we see that social and personal factors are able to reduce the pharmacological vicious circle.

I hope that the foregoing discussion of the complexity of the dependence problem has once more demonstrated that a monodisciplinary study cannot yield an adequate theory of the drug problem. Only a mult-disciplinary approach can in the long run bring a solution.

SUMMARY

The dependence problem is discussed from the vantage point of clinical psychiatry. The author presents some models which may help the clinician to bring some order in the multitude of facts, hypotheses, and theories brought forward from different fields of science and experience, and to probe the possibilities for further research, all the time keeping an open eye for new discoveries and fresh hypotheses.

After a brief general description of dependence, it is stressed that *dependence, including addiction, is not a separate entity, but that it has to be considered the final stage of a process. The stages are: contact, experimentation, excessive use, dependence, addiction.**

In each stage damaging misuse is possible. The process can be stopped in each stage. A return from later to former stages is possible.

In the individual case it is of paramount importance to diagnose the stage of the process in order to come to a correct assessment of the situation and to offer adequate therapeutic help.

Regarding the etiology of dependence, the following models are presented:

Generating factors:

- A. The pharmacological effects of the drug;
- B. The personal factors of the user;
- C. The social meaning and value of a drug and of drug taking;
- D. The environmental influences on the user.

Factors responsible for maintaining the process after contact with the drug has been made:

The mechanism of vicious circles is discussed. In dependence in general there may be present four of them:

- A. The pharmacological vicious circle;
- B. The cerebro-ego-weakening vicious circle;
- C. The psychic vicious circle;
- D. The social vicious circle.

*Editor's italics.

Some brief remarks on the model of the four vicious circles are added:

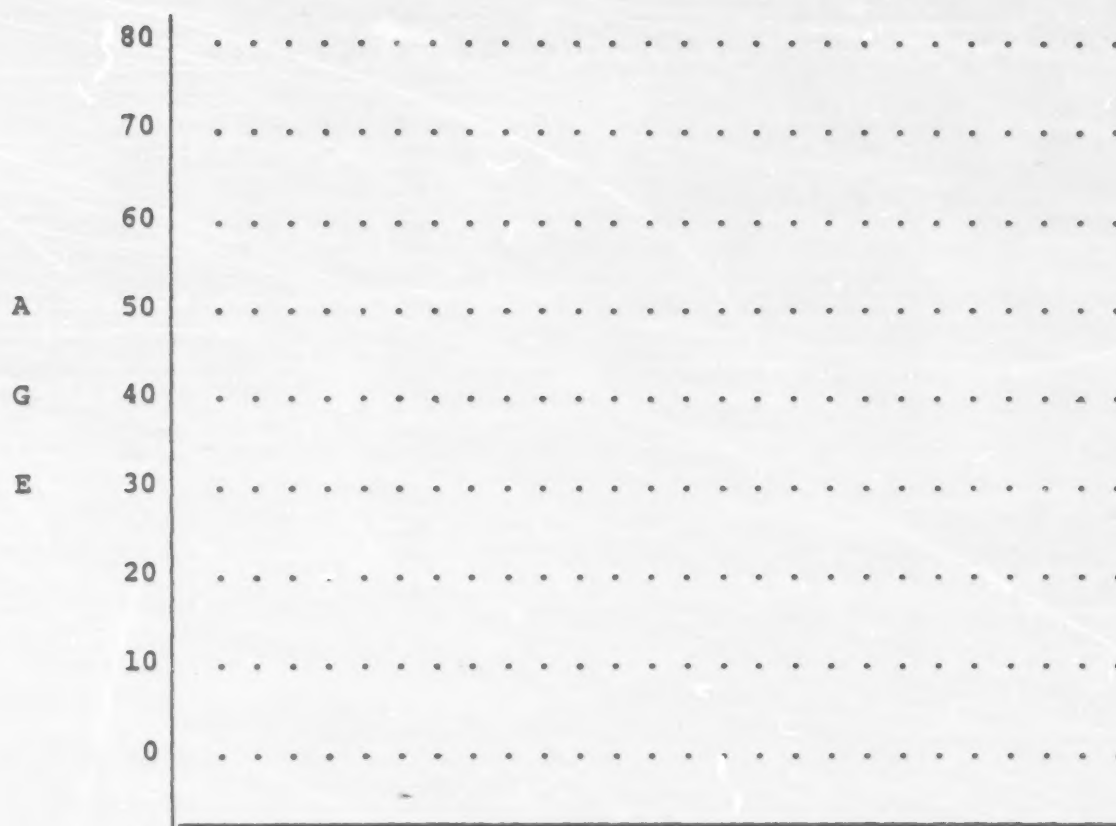
1. The model gives the opportunity to make a better distinction between different types of drugs.

2. The shift from a linear to a circular mechanism is connected with a developing disequilibrium between the operating factor on the one hand, and the capacity to keep up with it and its effects on the other.

3. The factors mentioned may cooperate and intensify or, conversely, counterbalance and reduce each other.

The author concludes that only a multi-disciplinary approach using multi-factorial models can in the long run bring a solution of the dependence problem.

SUBSTANCE - AGE CHART



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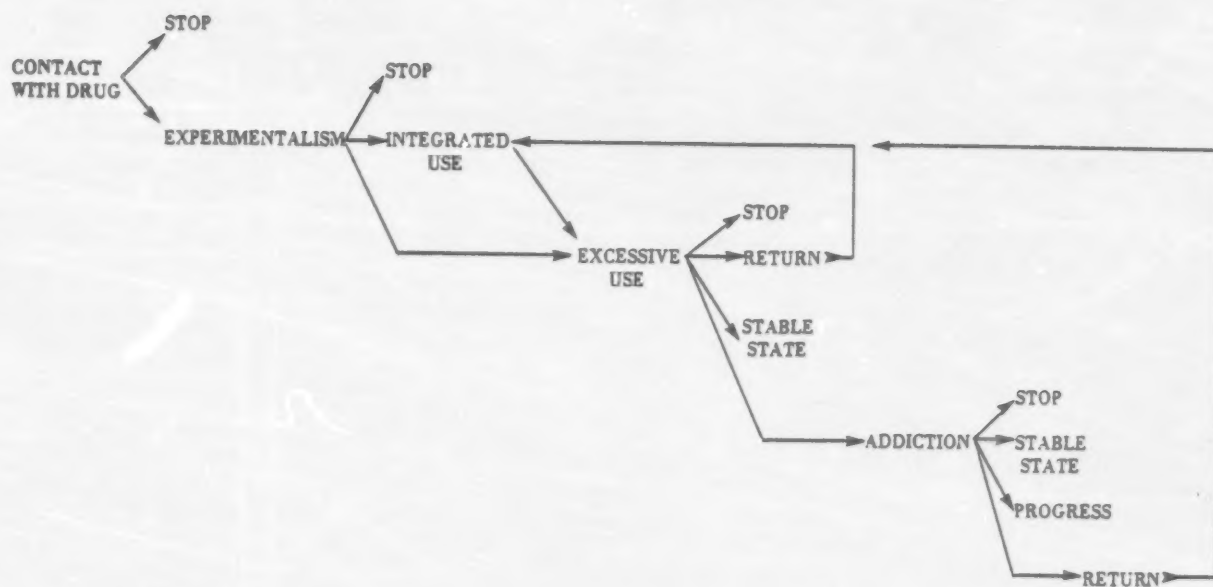


TABLE 1. STAGES IN PROCESS OF DRUG USE

EARLIER PHASES (CONTACT, EXPERIMENTATION)	LATER PHASES (EXCESSIVE USE, ADDICTION)
More Freedom	Lack of Freedom
Less Risks and Damage	More Damage
Abuse Possible	Abuse Present
No Illness	State of Illness
Operating Factors Linear	Vicious Circles

TABLE 2. SOME SHIFTS IN CHARACTERISTICS OF STAGES OF DRUG USE

1. PHARMACOLOGICAL PROPERTIES:

Strongly addictive drugs
(e.g., morphine, heroin)

Non-addictive drugs
(e.g., aspirin, laxatives, vinegar)

2. PERSONAL FACTORS:

Strongly disposition
to excessive use

No disposition
to excessive use

3. SOCIAL MEANING AND VALUE:

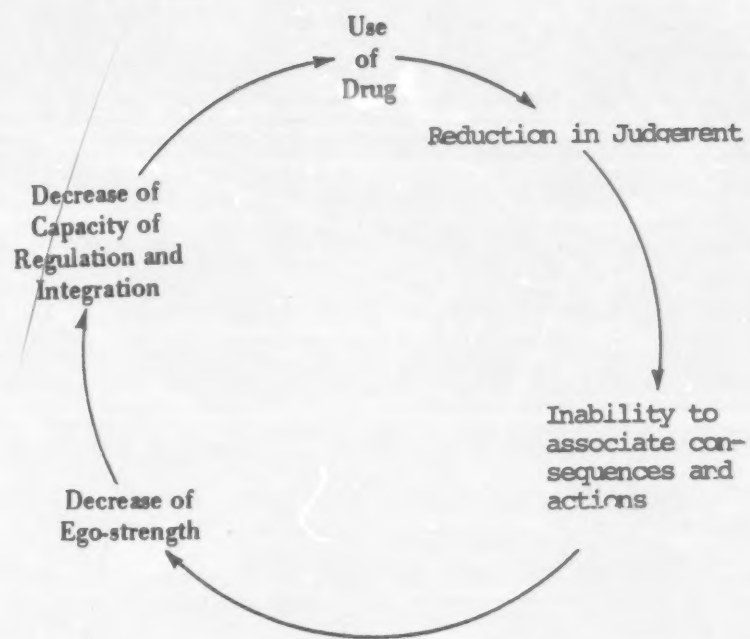
Drug accepted or rejected, ritualization,
social norms and sanctions (including legal
regulations, police actions and jurisdiction),
symbolic significance

4. ENVIRONMENTAL INFLUENCES:

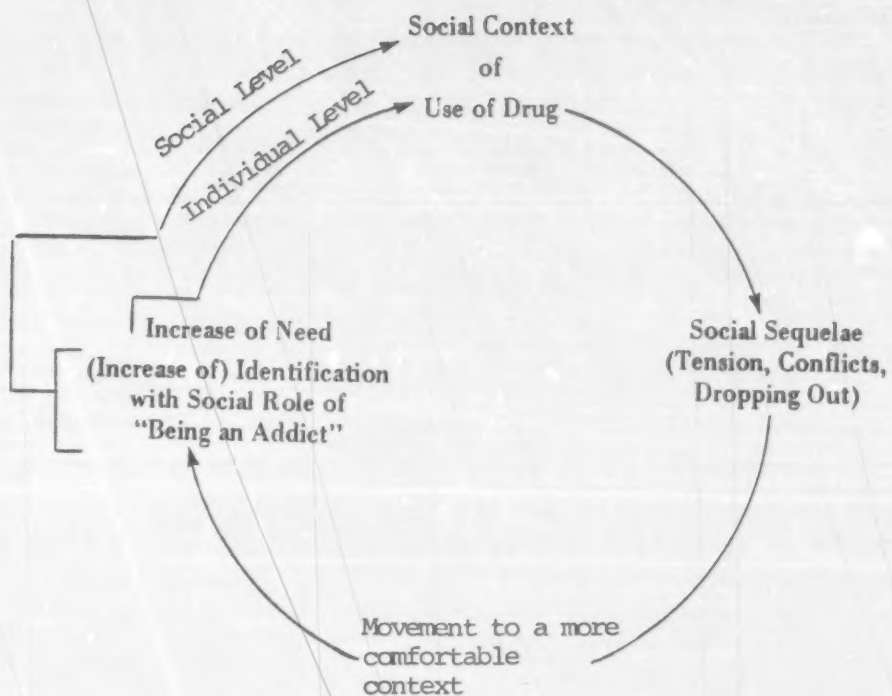
Negative factors

Positive factors

TABLE 3. OPERATING FACTORS IN THE ETIOLOGY OF THE PROCESS OF DRUG USE

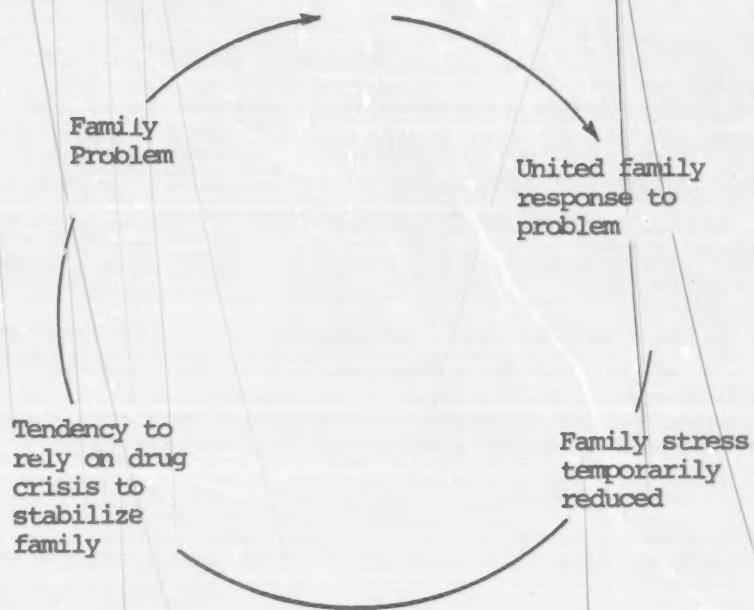


EGO WEAKENING VICIOUS CIRCLE



SOCIAL VICIOUS CIRCLE

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FAMILY VICIOUS CIRCLE

SUBSTANCE DEPENDENCE

by

H. Stephen Glenn

Joel Warner

Richard Hochman

SUBSTANCE DEPENDENCE: ALCOHOL AND HEROIN

INTRODUCTION TO SUBSTANCE DEPENDENCE

Generally, substances most frequently associated with dependence are those with pain-killing potential. Pain of any kind--social, psychological, or physical--produces stress, tension, and anxiety in the individual. Pain killers work by suppressing pain, by altering the ability to respond to pain, or by reducing the tension and/or anxiety caused by pain.

Most pain-killing drugs do not eliminate the source of pain. The user takes the drug to relieve discomfort and to make the pain more bearable.

Terminology

An understanding of three pharmacological concepts--tolerance, physical dependence, and psychological dependence--should serve to establish a clearer conceptual understanding of substance dependence.

The following discussions are taken from the National Institute on Drug Abuse manual *Medical Treatment for Complications of Polydrug Abuse* (1976).

Tolerance

Tolerance involves a change in the relation between the dose of a drug and the effects the drug produces. Tolerance is a state of decreased responsiveness to the pharmacological action of a drug resulting from prior use of that drug. The magnitude of tolerance can be defined by comparing the response to the initial dose of the drug with the subsequent response to the same dose. As an alternative, tolerance can be quantified by the increase in dosage required to produce a response equal to the initial response.

Tolerance is acquired by previous exposure of the organism to that drug or drug class. Tolerance to one barbiturate produces tolerance to all barbiturates. Cross-tolerance refers to tolerance between different drugs in the same class or across drug classes, e.g., tolerance to barbiturates also produces tolerance to alcohol. Tolerance which de-

velops after repeated exposure to the drug over a period of days or months is referred to as chronic tolerance, as distinguished from acute tolerance which may be evident after a single dose. Tolerance may develop in response to some, but not necessarily all, of the actions of a particular drug. Tolerance to the different pharmacological effects of a drug does not necessarily develop at the same rate or to the same degree.

The extent of tolerance and the rate of its development depend on the drug, the individual, the dose, the frequency, and the mode of administration. Tolerance development is favored by the continuous exposure to the drug. In most cases of tolerance, an increase in dosage will again elicit the drug effect in the tolerant individual. With certain drugs, however, a plateau effect may occur and the specific drug effect cannot be obtained at any dosage. If the individual becomes tolerant to a drug that produces rewarding or reinforcing effects, or tolerant to the effectiveness of the drug in reducing unpleasant feelings, the individual may increase dosage to maintain the desirable effect.

Clinically, the level of tolerance is estimated by one or more of the following:

1. History
2. Blood level of the drug compared to the apparent state of intoxication
3. Titration with the drug of dependence to determine the dosage needed to produce an intoxicated state
4. Single dose challenge
5. Stabilizing the patient in a hospital ward for 48 hours to observe the pharmacological effects of the dosage which the patient claims to have been taking (NIDA, 1976).

Physical Dependence

Physical dependence is defined by the appearance of an observable abstinence syndrome following the abrupt discontinuation of a drug of regular use. Quantitative and qualitative differences in the physical dependence associated with different drug classes (sedative-hypnotics, opiates, stimulants) are manifest by differences in the abstinence syndromes. The concept of physical dependence is based upon observable signs.

Physical dependence is one factor in maintaining daily drug-taking behavior in a physically dependent individual. Physical dependence is associated with a state of chronic intoxication which develops with the continuous presence of a drug in the body. The abstinence syndrome marks the transition from the chronic intoxicated state to the drug-free (or reduced) state and represents a period of physiological and psychological readjustment.

Most theories regarding physical dependence are based on the concept of an adaptive change in response to the pharmacological actions of a drug. The homeostatic mechanisms adapt the body to the continued presence of the drug. When the drug is abruptly withdrawn, counter-adaptation produces the abstinence syndrome. Support for the "adaptation" hypotheses comes from the observation that the disturbances of physiological functioning in the acute abstinence syndrome are generally opposite to the effects produced by the direct action of the drug (e.g., opiates reduce gastrointestinal motility as a direct effect, but withdrawal of opiates produces increased gastrointestinal motility).

The state of physical dependence represents an adaptation to the presence of a drug and is not a "normal" physiological state. The concept of physical dependence implies that the "absence" of the drug has significant physiological impact. If the drug level is sufficient to prevent withdrawal signs and symptoms from developing, there are no definitive signs of physical dependence, as distinct from the chronic intoxicated state. The state of physical dependence can be unmasked by withdrawing the drug that is responsible. Readministration of the original drug or a related drug terminates the abstinence syndrome. Two drugs are considered to be cross-tolerant with one another if they can completely suppress the abstinence syndrome in a physically dependent individual.

Physical dependence is measured in terms of the intensity of the withdrawal phenomena which develop when the drug is stopped. The extent of knowledge of withdrawal phenomena is dependent upon the accurate measurement of physiological disturbances produced by abruptly stopping the drug of dependence in a physically dependent animal or man. The tendency has been to assert that physical dependence is not present unless *clinically* demonstrable signs are present. There are probably abstinence phenomena which are not clinically apparent but could be measured if more sensitive monitoring techniques were utilized (NIDA, 1976).

Psychological Dependence

Psychological dependence refers to a strong *need* to experience the drug effect repeatedly, even in the absence of physical dependence. Traditionally, medical treatment of drug dependence has been preoccupied with physical dependence, although psychological dependence is probably more important in the maintenance of drug-taking behavior. The need for the drug as a motivator is thus contrasted with the fear of withdrawal. Cocaine and marijuana are associated with no demonstrable physical withdrawal symptoms, yet produce psychological dependence in some individuals.

Wikler emphasized the importance of conditioning in the acquisition and perpetuation of drug-using behavior. After taking drugs, the user experiences a specific response which is rewarding. Within the behavioral framework, the reinforcement may be either the attainment of a "pleasurable state" or the avoidance of a "noxious state."

Paraphernalia associated with the drug experience, e.g., a tie, syringe, certain friends, etc., may become secondary conditioned stimuli for the user over a period of time. Following drug treatment or even an extended period of drug abstinence, the drug-dependent individual may experience a "need" for the drug experience when exposed to the conditioned stimuli. Other theories of psychological dependence may be of importance. Psychoanalytic theory, for example, emphasizes the importance of underlying depression and the need for a drug to help the user escape from his feelings (NIDA, 1976).

Relationship between Tolerance, Physical Dependence and Psychological Dependence

Tolerance and physical dependence usually develop concurrently, but the biochemical and physiological relationships are far from understood. A number of biochemical processes in the central nervous system (CNS) and other tissues have been shown to change in a way which coincides roughly with the changes in tolerance and dependence. These changes have been referred to as the "biochemical correlates" of tolerance and physical dependence. However, their exact relationship to the integrated functions of the CNS or drug-taking behavior is uncertain. Subtle changes in the metabolism of the CNS have been postulated, and these may persist for months or years in opiate dependence. The role of such alterations--if they occur--in the perpetuation of drug-seeking behavior is debatable.

Psychotropic drugs, which induce physical dependence, produce some degree of tolerance. As tolerance develops, the CNS is exposed to higher concentrations of a drug. While tolerance is measurable by monitoring responses to a drug, physical dependence is shown only by the reduction or withdrawal of the drug.

The following table roughly quantifies the relationship of tolerance, physical dependence, and psychological dependence with common psychoactive drugs.

Drug	Tolerance	Psychological dependence	Physical dependence ¹
Alcohol	+	+++	+++
Pentobarbital	++	+++	+++
Secobarbital	++	+++	+++
Heroin	+++	++++	++++
Marihuana	0	++	0

¹Refers to the rapidity with which physical dependence develops, not to the severity of the dependence.

Note: +=slight to ++++=marked
(NIDA, 1976).

NARCOTIC ADDICTION AND ALCOHOLISM: A COMPARISON

Dependence on alcohol or other general depressants (such as barbiturates and meprobamate) is markedly more difficult to produce than heroin addiction. Once established, however, those dependencies become far more hazardous to the person. During severe withdrawal from such depressants, *grand mal* seizures and severe psychosis can occur. Even among patients under intensive care, there is a relatively high incidence of mortality. On the other hand, heroin abstinence, although extremely uncomfortable, rarely results in death.

Physical Reactions

Addiction to either alcohol or to narcotics will cause similar metabolic changes in the body.

When alcohol or narcotics first enter the body, they upset natural functioning of cells. If either drug is used regularly, the physiological processes adapt to its presence and eventually begin to function normally. When use of the substance is discontinued, cells, having adapted to presence of the substance, again function *abnormally*. The user experiences discomfort either: until more of the substance is taken, or until his cells can re-adapt to absence of the substance.

Once the body processes return to normal, the user may still experience psychological effects (and some psychosomatic dysfunctions) that are as real as the physical problems induced by the substances. Any user who wants to abstain permanently must develop nonchemical resources for coping with stress and tension.

Coping with Abstinence

Here, the alcohol user encounters additional problems not experienced by the narcotics user. Narcotics are illegal and socially unacceptable. If the user changes his life style and associations by removing himself from the drug subculture, most of the pressure to use narcotics is eliminated. In contrast, alcohol use is legal, socially acceptable, and frequently expected--with the result that the user attempting to abstain is faced with both continuing temptation and social pressures to keep on drinking.

In terms of incidence of use, complications resulting from acute overdose, long-term effects on the individual's physical and mental state, and ultimate cost to society, there is no close second to alcohol.

ALCOHOL AND HEROIN: A COMPARISON

The two types of painkilling drugs that have aroused the greatest social concern are narcotics (primarily heroin) and alcohol. There are both striking parallels between the substances and essential differences.

Consider the following parallels:

- Both substances are formed naturally.

Alcohol is a product of fermentation, occurring in the making of wine, beer, cider, etc.

Opium, the base for most narcotics, is obtained from a milky substance contained in the unripe seeds of the poppy plant, *papaver somniferum*.

- Both can be used as a general anesthetic, since both depress the functions of the central nervous system.

"Heroin depresses respiration by its depressant action on the central nervous system, and respiratory failure and death may result from medullary paralysis (Gay and Way, 1971).

Alcohol belongs in the class with anesthetic drugs, both in its chemical composition and in its effect upon the physiology. By combining with the fatty tissues of the body as well as the brain cells, like ether or chloroform, it produces changes that are anesthetic in character. During the administration of an anesthetic the individual passes through the induction stage and then into activity, when the controls are released, and the same results follow ingestion of alcohol over a period of time. As with other anesthetic agents, there is eventually a period of unconsciousness. If an anesthetic agent is continued in administration for a period beyond safety, the vital centers of respiration and circulation can be paralyzed (BLOCK, 1965).

- Under certain conditions, both can be used regularly without addiction.

A recent study* indicated that heroin users can use heroin two or three times per week for many years without experiencing tolerance or withdrawal. Another study** indicated that there is a broad range of reactions to heroin.

*The finding that heroin addiction is far from inevitable was confirmed in another way by psychiatrist Norman E. Zinberg and researcher Richard C. Jacobson. Through ads in the underground press and by personal contacts, they found 54 people, in their late teens to mid-fifties, whom they believed to be using heroin only occasionally. Some used heroin very irregularly, others only on special occasions, still others perhaps as often as very Saturday night. In contrast to confirmed addicts (who shoot up several times a day) these users could go without heroin for a week or more. They believed very definitely that they could become hooked, but they had not increased their frequency of use for more than a year and in most instances for several years. Many actually were decreasing their use, usually because they feared addiction or arrest.

**The White House's Special Action for Drug Abuse Prevention commissioned sociologist Lee N. Robins, of Washington University in St. Louis, to find out what became of Vietnam addicts.

Conventional programs attempting to "cure" addicts are influenced heavily by law-enforcement policies that classify addicts as criminals. Such programs seldom help more than 20 percent of their clients to stop using heroin.

Yet Robins discovered that the cure rate for a cross section of GI addicts after eight to ten months of civilian life was dramatically higher--better than 90 percent. Most of the ex-addicts surveyed said they knew how and where to get heroin if they wanted it. But only 8 percent of the veterans who had been addicted in Vietnam admitted they still used opiates regularly. New urine tests confirmed the abstainers' claims. Furthermore, many actual opiate users who had not been detected by the original urine tests had since left heroin behind, even without special treatment.

Millions of people drink to the point of intoxication regularly without experiencing tolerance or withdrawal.

For 1970, the projected total number of drinkers in the United States 15 years of age and over was 95 million.

If we accept reliable estimates that about nine million people in this country are alcoholic and problem drinkers, then the average drinker with no alcohol related problems actually drinks much less than the national average of 3.93 gallons of alcohol. Thus, as surveys confirm, this Nation had millions of occasional and very moderate drinkers (NIDA-HSM-42-73-77).

The most significant differences between narcotics and alcohol include:

- Side effects:

Pure narcotics (opiates) are generally efficient painkillers with few destructive side effects.

Alcohol is a far less efficient painkiller, and produces many destructive side effects.

- Degenerative effects:

Use of pure opiate causes little, if any, short-term or long-term degeneration of body organs and tissues.

Use of alcohol causes serious short-term and long-term degeneration --or both.

- Contamination:

It is almost impossible to purchase *pure* narcotics on the street. Opiates usually are cut with other substances many times before reaching the user.

Since opiates cannot be purchased legally, the addict is forced to purchase an uncontrolled product of dangerously variable concentration and often containing poisonous adulterants (Chein, *et al.*, 1964).

Because alcohol is produced and distributed legally, its purity generally is controlled.

- **Withdrawal:**

Withdrawal from opiates rarely produces convulsions or death. Normally, withdrawal from heroin takes approximately 72 hours, and produces symptoms similar to those that accompany acute influenza.

Alcohol withdrawal frequently produces both convulsions and death. Withdrawal from alcohol usually takes two or more weeks and is accompanied by more severe symptoms, notably *delirium tremens* (D.T.'s) and convulsions. Alcohol withdrawal must be regulated carefully by a physician.

Heroin Withdrawal

The onset of heroin withdrawal symptoms begins six to eight hours after the last "fix." Symptoms produced are similar to a bad case of the flu: runny nose, stomach cramps, diarrhea, vomiting, muscle cramps, shaking chills or profuse sweating, "gooseflesh" skin, insomnia, and general irritability or jitteriness. The maximum severity of symptoms develops within 24 to 72 hours after the last use of heroin, with the more dramatic symptoms subsiding in five to seven days, even without treatment. More subtle withdrawal symptoms, however (such as irritability and difficulty with sleeping), may last much longer.

Methadone, meperidine (Demerol®), and other narcotics can produce similar withdrawal symptoms, but differ primarily in time, course, and severity (for example, methadone withdrawal symptoms are more prolonged but more mild than those of heroin withdrawal). Although the physiological basis of these withdrawal symptoms is well established and is primarily subcortical in origin, psychological factors modify to a great extent how the symptoms are perceived and interpreted.

TENSION LEVELS*

This section will attempt to illustrate the physiological aspects

*Material condensed from Gitlow, Stanley E. The Pharmacological Approach to Alcohol. *Maryland State Medical Journal*, April, 1970, 19, 93-96; and transcripts of a lecture delivered (February 24-25, and October 27-28, 1966) for the Alcoholism Interagency Training Project of the Community Council of Greater New York. That state training program for social workers was supported by the National Institute of Mental Health.

of substance dependence, and their relation to individual tension levels.

Various reactions to consumption of sedative-hypnotics (particularly alcohol) are illustrated in Chart 1: "Reactions to Sedative-Hypnotics (Particularly Alcohol)."

A normal tension range is defined by Dr. Gitlow as the mean or average tension level for adults. Chart 1 illustrates the variations in reactions to alcohol consumption *from death due to absence of tension, from death due to convulsions.*

Tension levels increase and decrease due to daily events, varying with each individual. The average tension level (ATL) constitutes a range of tensions that the individual experiences, unaltered by the influence of substances (drugs).

When alcohol [is ingested it] depresses the brain, [and] *it diminishes the psychomotor activity level.* The psychomotor activity level may be measured by the amount of anxiety or tension noted. Diminished psychomotor activity level means relief from anxiety and whatever it is that may bother the individual; insomnia, tension, job, or family pressures. When the person's blood alcohol rises, his psychomotor activity level goes down; he is relieved, relaxed, less anxious, less frightened, less worried than before. But as soon as the blood alcohol level starts to fall, this sedative effect diminishes, and even a big dose, such as a couple of jiggers, wears off very rapidly after the second hour. If that were all, there is a distinct possibility that we might not have the disease called alcoholism, because under those circumstances, an individual could drink to get relief, his anxiety level would diminish, the drink would wear off, and he would come back to where he was before. But...there is another effect that acts in the opposite direction.

The second effect is to increase the psychomotor activity level. This increase takes place immediately after taking a drink, but is not immediately felt because the change is less intense than the sedative effect. This [latter] lasts two or three hours, while the opposite or agitating effect usually lasts for about 12 hours after one big drink. Therefore, as the short-term sedative effect wears off, the other effect of alcohol--increased psychomotor activity--becomes apparent. No one in this world can get a sedative effect from any known drug without it being followed by an agitating effect which wears off more slowly (Gitlow, 1970).

The first effect of reduced tension level resulting from sedative/hypnotic consumption is illustrated in Chart 3: "Tension Changes Due to Alcohol Consumption" (see notation S¹).

The second effect of an increase in tension level is illustrated in Chart 3, notation S².

Near the end of the second hour after the original drink, when the sedative effect wears off and the agitating effect starts to gather momentum, the individual is more tense than he was before he drank at all. And so he will have another drink and the anxiety level will diminish again, but in about two hours, the psychomotor activity level will rise again, higher than ever. This cycle of increased tension, drinking, short-term sedative effect, longer-term agitating effect, higher tension, drinking again, can go on for some time. Eventually, however, a point is reached when decreasing the psychomotor activity level to a really low state is difficult, no matter how much alcohol is taken. This is because the agitating effects from all of the previous drinks are cumulative. (See Chart 4: "The Build-Up Effects of Additional Alcohol Consumption.")

This agitating effect occurs in experimental animals and in humans; it is inherent in the pharmacology of the drug. You don't have to be an alcoholic in order to experience it. Anyone gets this effect if he drinks enough. For example, after an evening of heavy social drinking, you may have a hangover, the common name given to this condition of after-agitation. A drink (hair-of-the-dog) will relieve this because it provides sedation to counteract the agitation of last night's drinking. Of course, the morning drink is going to be followed by its own agitation for another 12 hours, but the drink may get you through a trying period until you begin to get a decrease in the agitating effects of the heavy drinking from the night before. By afternoon, you are feeling pretty well again (Gitlow, 1970).

See Chart 5 for a representation of the "hair-of-the-dog" effect.

If, however, an individual has been drinking heavily over a long period of time it may take many days for his psychomotor activity level to return to its normal state (Gitlow, 1970).

Chart 6 shows the effect of higher alcohol dosages; Chart 7 shows the tension levels produced by 48 hours of high level alcohol consumption.

TENSION LEVEL EFFECTS IN LIFE SITUATIONS

Stan Abuse

Let us imagine a man--call him "Stan Abuse"--who is 34 years old, married, has children, and is employed in a middle-level management position. He is comfortable, but motivated to advance in his career.

On a Friday afternoon, he stops after work for a drink with some friends. After a couple of drinks, he excuses himself and goes home to shower and get ready to go out to dinner with his wife. He has a quick drink before leaving for the restaurant, where he and his wife wait 30 minutes in the cocktail lounge. A round of drinks is served.

The food is excellent. Stan and his wife enjoy a good wine with dinner, and order a fine liqueur to top off the meal. They visit a night club and have a few more drinks. Our friend becomes quite merry, and the couple stops off at a friend's place for a nightcap. It's o.k., because it's Friday and Stan knows he can sleep late on Saturday morning.

But what actually happens on Saturday morning?

Our previous discussion of physiological facts suggests that, because the subject of our story drank over an eight-hour period, he may indeed sleep peacefully for a while. But his tension level will gradually rise throughout the early morning hours, until it passes the normal level. By about 7 a.m., Stan's tension level will be high enough so that footsteps on the stairway or a door slamming anywhere in the house will wake him. For the next 36 to 48 hours, his tension level will continue to be higher than normal. If he doesn't drink anything more, he should reach a normal tension level by early Monday morning.

Because he is unable to sleep, he decides to get up. His head is aching and he feels bad. Never mind, a Bloody Mary will fix that. Now he's up and about and feeling better. He gets hot and dusty doing yard work, so he has a beer or two to quench his thirst. Then a neighbor drops in; that calls for ham sandwiches and another beer.

Saturday evening a friend stops by, so drinks are served to show the host's hospitality. Stan finishes off the night with a beer while watching television.

Saturday's alcohol, when added to Friday's alcohol, means that it will be late Tuesday before Stan's tension level becomes normal.

Sunday, Mr. Abuse spends a quiet day on the lake with the family, so he only drinks a six-pack of beer. By Sunday night, he is doomed to suffer serious after-effects until Wednesday afternoon. And he only got high once.

When he wakes up Monday morning, Stan's tension level is elevated well above normal, but it is not yet high enough for him to notice. A typical American, the first thing he does is drink a cup of coffee to get started. He will probably have another cup before he leaves home, and still another cup of coffee every 90 minutes for the rest of the day.* The caffeine increases the stress on Stan's system and temporarily elevates the activity level.

Once he is up and dressed, the subject joins the flow of commuter traffic, thereby adding more stress and tension to those produced by the coffee and alcohol.

Having reached his office, Mr. Abuse will wrestle with the volume of work typical of the first of the week. He takes three or four coffee breaks, attends a staff meeting, and participates in another commuter rush at 5:00 p.m. By 5:30, his tension level is high. He feels like taking off his shoes, having a drink, and relaxing. Possible he will have a beer or two during the evening.

Stan repeats Monday's pattern all week. When Friday comes again, he is already going to experience an increased level of tension through Sunday afternoon. Add another weekend of increased alcohol consumption, then another typical week and the subject has acquired from a week to ten days' elevated tension, resulting from the aftereffects of drinking. If nothing changes, this tensions level will remain more or less constant throughout the rest of his adult life.

At this point in Stan's life, the increased tension level is present, but not very apparent. As long as his home life remains happy, work goes well, and his health is excellent, the tension patterns may not become significant.

But suppose something goes wrong?

If a day comes when his sales slip and he becomes irritable at home due to pressures from work, problems will begin to develop. One Monday, as pressure mounts, Stan might be chastized at a staff meeting because of his poor sales performance. He returns to his desk to work on his reports, but finds that he can't concentrate. He gets a cup of coffee and again tries to concentrate, but he feels too anxious to work. He decides to make a few contacts but that

*The average cup of coffee contains about one to one and one-half grains of caffeine, a stimulant primarily affecting the heart and nervous system.

doesn't go well because he is too tense. He considers going home but there's tension there too. He finally drops by a bar for a few drinks and then goes home.

The next day Stan arrives at work determined to improve his performance. But yesterday's drinks, coupled with the residual tension, make that impossible. The ensuing frustration may result in his having a drink at lunch, and a few more in the evening.

At this point, what Stan Abuse really needs is to spend several days without any drinking, so his tension level can drop to a more reasonable level. He also needs to cut back on his caffeine consumption; that would also help him relax. Instead, since he has no understanding of the cycle in which he is caught, he perpetuates it.

He finally decides to visit a busy doctor in a nearby office. Stan explains that circumstances temporarily combined to produce increased tension and pressure at work. He convinces the doctor that he is suffering from tension and anxiety--a minor, temporary incapacitation. The doctor decides to prescribe a minor tranquilizer. When the patient hears the word *minor* he assumes that it means *small* or *insignificant*. This seems just the right remedy for a not-too-serious problem.

The word "minor" as used by the doctor doesn't mean "minor" as the patient understands it.* In the case of tranquilizers, "minor" means that the tranquilizer won't destroy all of the patient's muscle control. It will reduce tension and anxiety, but will leave the patient functional.

*The term "minor tranquilizer," although commonly applied, has contributed to the misunderstanding. Drs. Klein and Davis, in *Diagnosis and Drug Treatment of Psychiatric Disorders*, state:

The irretrievably ingrained term "minor tranquilizer" is most unfortunate for it implies that these agents act like major tranquilizers but to a lesser degree; one might expect large doses of the minor tranquilizers to have approximately the same clinical effect as small doses of the major tranquilizers and to be effective in the same range of clinical conditions. Actually, this is not the case; the minor tranquilizers more closely resemble sedative hypnotic drugs such as the benzodiazepines than major tranquilizers such as the phenothiazines.

The phrase "minor tranquilizer" is a medical term the doctor shouldn't share with his patient unless he carefully explains its meaning. The physician should have said:

I'm about to prescribe to you one of the most difficult-to-manage medications known to us; it produces, as an aftereffect, exactly the problem I am giving it to you to relieve.

If we are not careful, you will join the millions of other persons on this medication who are given prescriptions to counteract the effects of previous prescriptions. I can only give you this medication if you discontinue all use of alcohol, stop using caffeine, and alter your work regime and life style to reduce the real sources of tension. Then, if you don't improve in the next two or three weeks, we'll have to take you off this medication and try something else.

But usually the patient receives neither the clear information nor the careful warning that is in order. Without this essential lecture, the patient will get up the next morning and take the tranquilizer, believing it will reduce his tension level. Indeed, for six to eight hours, the tranquilizer will work effectively. When tension again begins to increase around 4:00 p.m., patient Stan Abuse will, as usual, have martinis to help him unwind. These will get him through until about 1 or 2 a.m., when again he will pass through the normal tension range, approaching the increased tension zone. The next morning, he will wake up more tense than before because of the secondary effects of yesterday's relaxation-by-drinking. So he takes more medication.

Soon Stan begins reaching his increased tension zone at about 1 or 2 a.m. He wakes up and has insomnia for three or four hours. He returns to his doctor and demands to know what is happening: "I feel good all day because of the medication you gave me," he says, "but I can't sleep at night."

If the doctor says, "That's all right, I'll give you a barbiturate to get you to sleep," the cycle is complete.

Now at about 10 p.m., when his martinis are wearing off and the aftereffects of his tranquilizers are starting to boost his tension, Stan will take a barbiturate to make himself sleep. This won't wear off until about 7 a.m., at which time his tension level is again rising.

The tranquilizer he took is producing more tension. The alcohol he drank is producing more tension. The coffee he drank to help him wake up is producing more tension. Now he is really tense and needs his tranquilizer more than ever.

This story illustrates a tragic and unnecessary life pattern common to millions of Americans. People using sedative-hypnotics

should abstain from all such drugs long enough to be free from all their effects for a period of time. They should attempt to reach the point where they can find out how much tension is real and requires treatment, and how much is simply the aftereffect of substance use.

SUMMARY

In this paper, some of the unique properties of sedative-hypnotics that contribute to unnecessary dependency on those drugs have been discussed. There are other characteristics that probably should be covered, but many of those have been reviewed thoroughly in other works. The facts highlighted here have come to light only recently. They have caused problems even when many of the social, psychological, and cultural patterns commonly associated with drug dependence are not clearly present.

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ALCOHOL AND HEROIN

	Alcohol	Heroin
DEGENERATIVE EFFECTS	Serious short- and long-term degeneration	Pure narcotic — less short and long-term degeneration of body organs and tissues than with alcohol.
CONTAMINATION	Controlled purity	Cut (mixed)
WITHDRAWAL	Frequently produces convulsions and death; -longer than 72 hours accompanied by severe symptoms; -DT's and convulsions; -can take up to two weeks.	Rarely produces convulsions or death. takes approximately 72 hours. (Methadone can be up to 6 months)
SOURCE	Formed naturally -product of fermentation	Formed naturally Opium — Poppy
COMMONALITIES	Potentiality of Addiction Severity of Withdrawal Process Can be used as a general anesthetic (depresses CNS) Can be used as a general anesthetic without developing addiction or compulsive use.	
LAW & SOCIETY	Legally and socially accepted (frequently socially expected by a majority of groups).	Illegal and socially unacceptable in the majority of groups.

CHART 1

REACTION TO SEDATIVE HYPNOTICS (PARTICULARLY ALCOHOL)*

DEATH

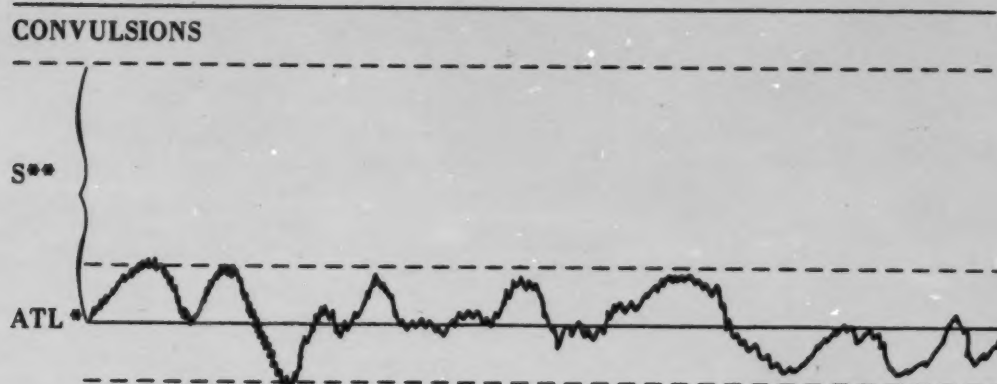
Convulsions	
Delerium Tremens	
Hangover	
Anxious	
Aggressive	
Normal	
Range	
Reduced Inhibitions	
Loss of Motor Control	
Loss of Coordination	
Passing Out	
Comatose	

DEATH

*This illustration was developed by H. Stephen Glenn, and printed with the permission of Dr. Stanley Gitlow.

CHART 2

AVERAGE TENSION LEVEL



COMATOSE

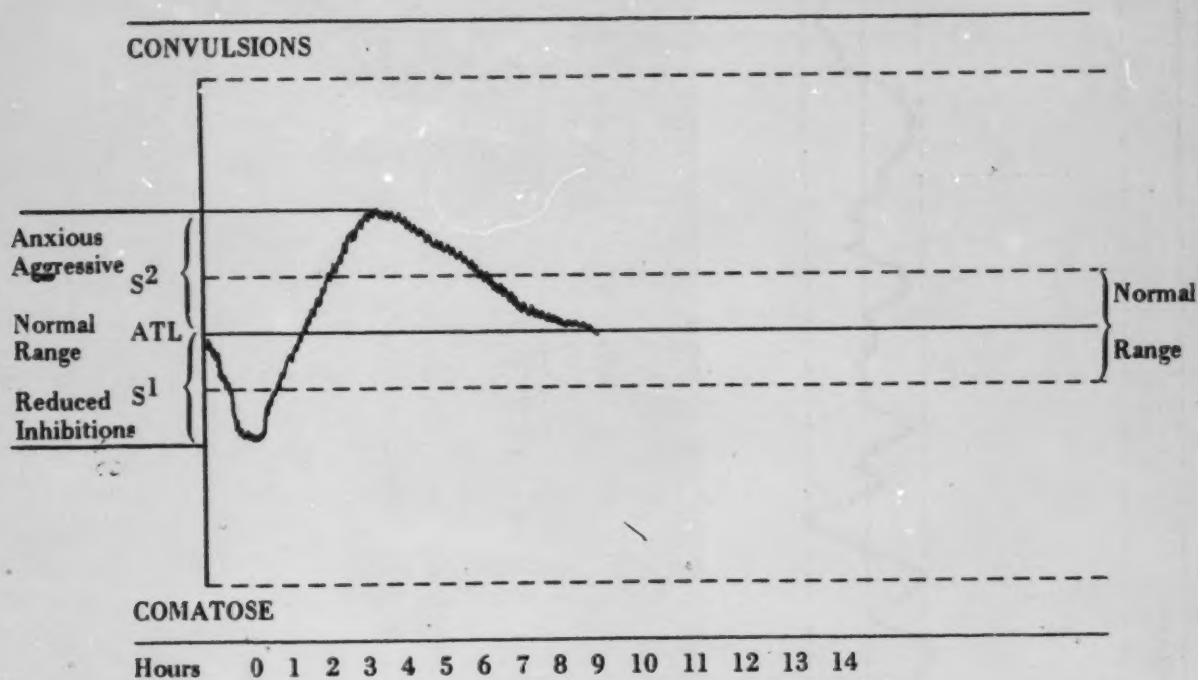
Hours → 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14

*ATL *Average Tension Level* varies with each individual.

**Average Amount of *Stimulation* Required to Produce Convulsion

CHART 3

TENSION CHANGES DUE TO ALCOHOL CONSUMPTION



(sedative effect)

S¹ Reduced tension level due to sedative/hypnotic consumption.

S² Increased tension due to psycho-motor stimulation.

CHART 4

THE BUILD-UP EFFECTS OF ADDITIONAL
ALCOHOL CONSUMPTION

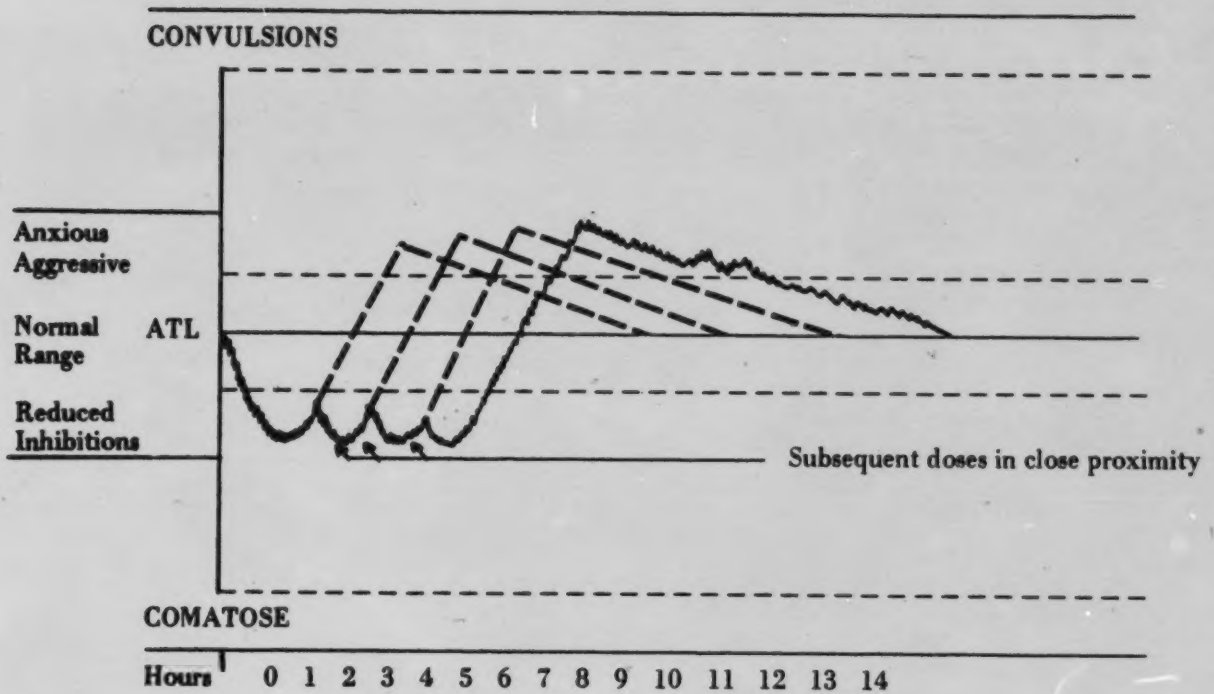
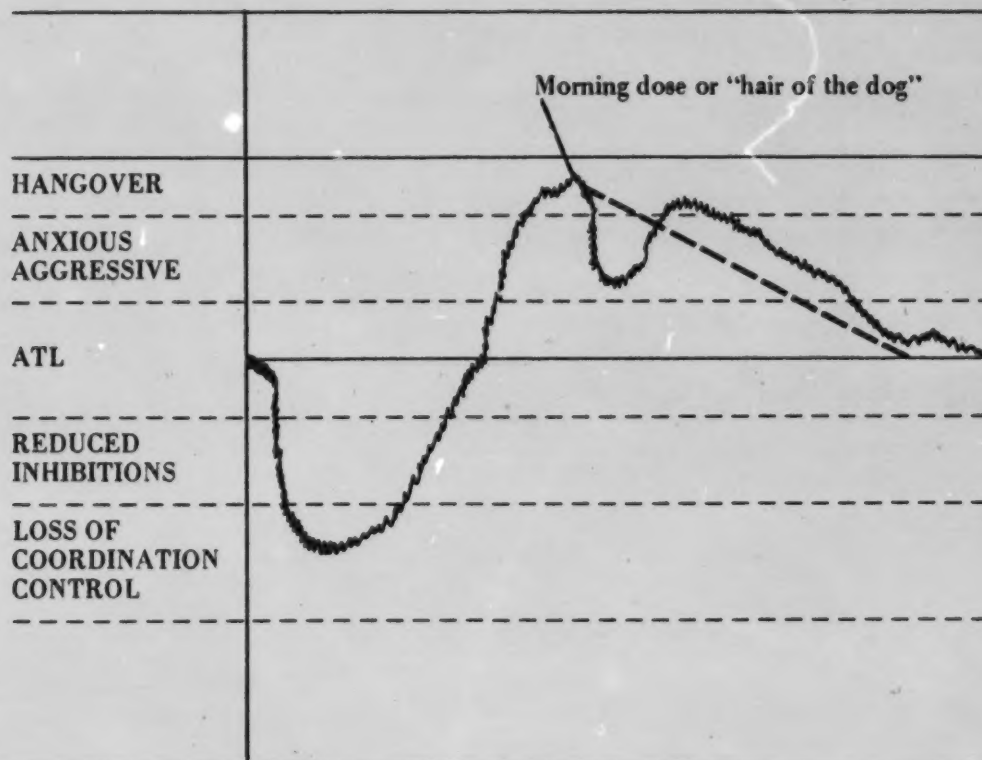


Figure 4

CHART 5

"HAIR-OF-THE-DOG" EFFECT *

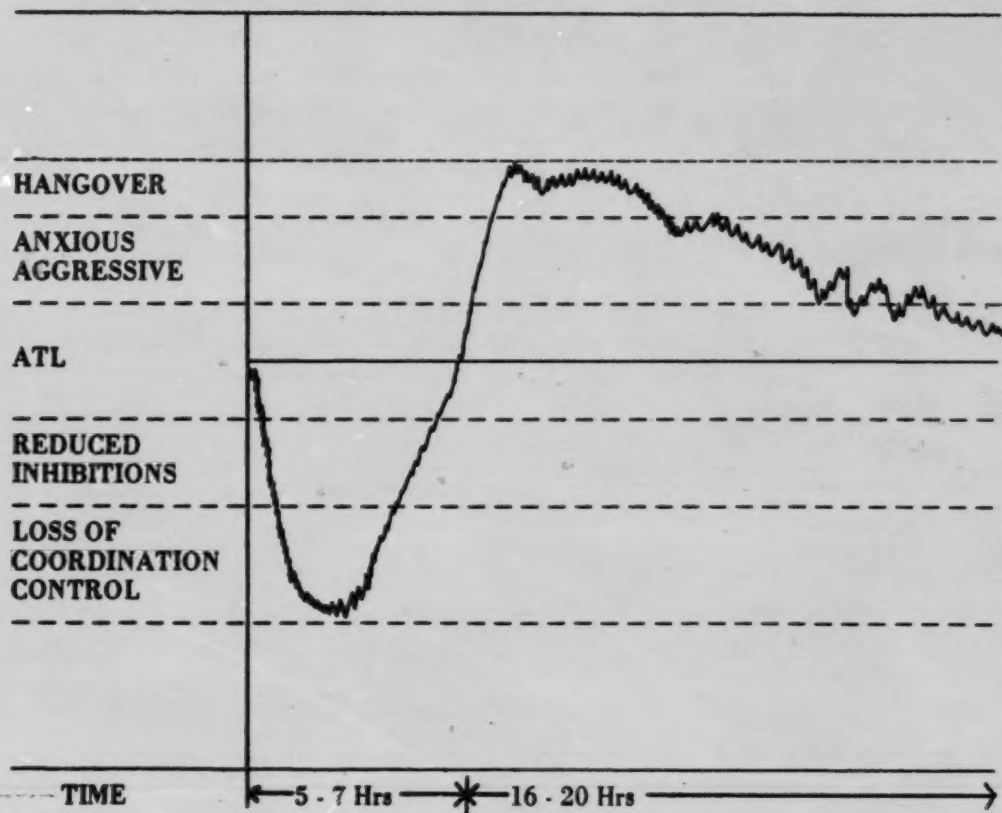


*The term "hair of the dog" refers to the colloquial expression, "to recover, take a hair of the dog that bit you."

593

CHART 6

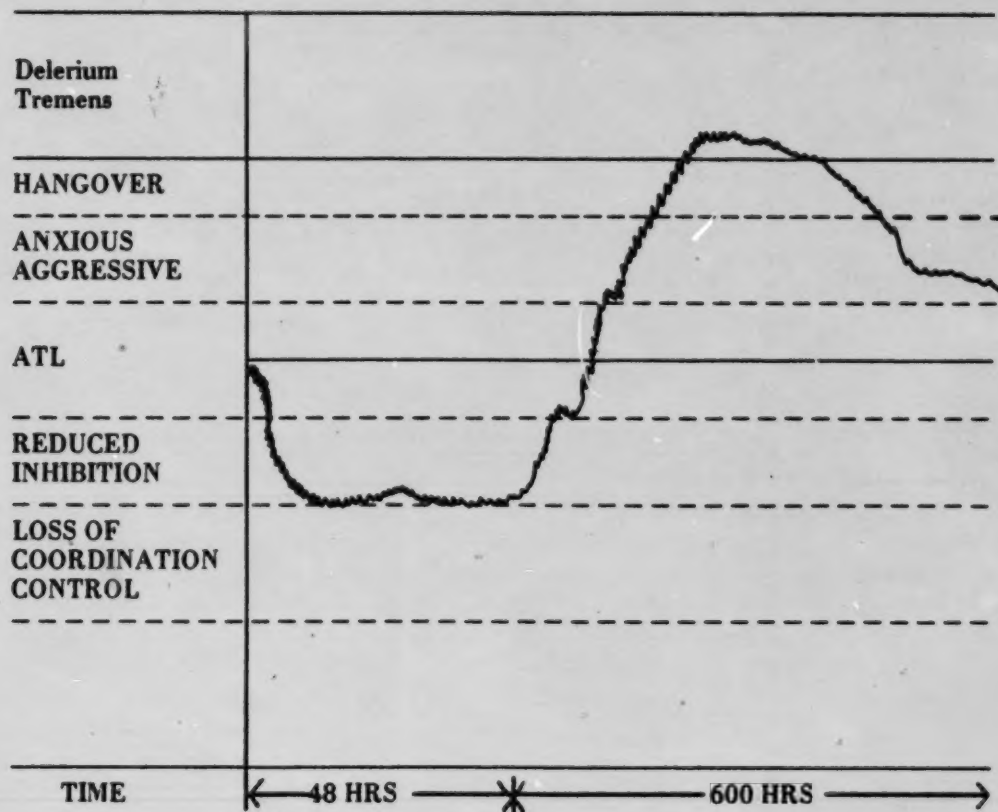
EFFECTS OF HIGHER ALCOHOL DOSAGES



504

CHART 7

TENSION LEVELS PRODUCED BY FORTY-EIGHT HOURS OF HIGH LEVEL ALCOHOL CONSUMPTION



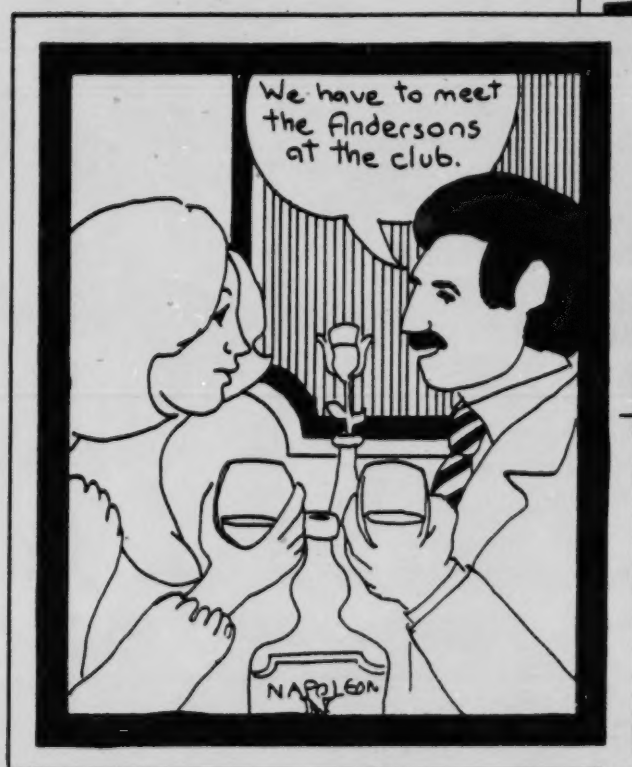
595

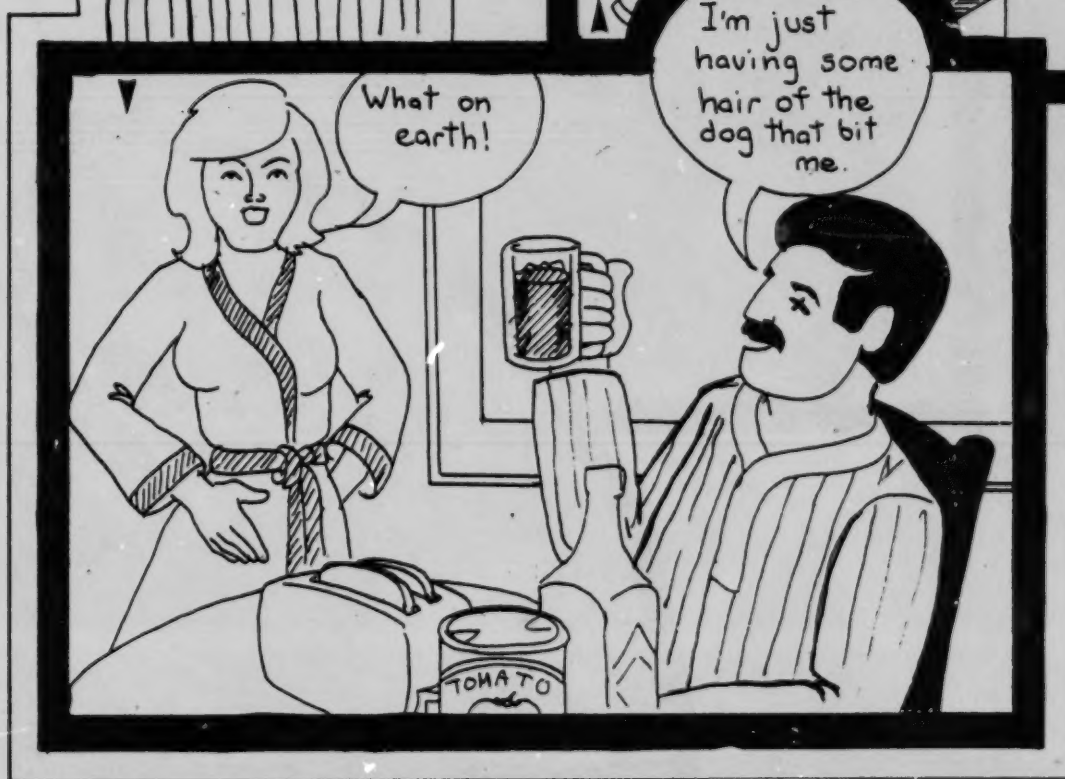
STAN
AGUSE

596



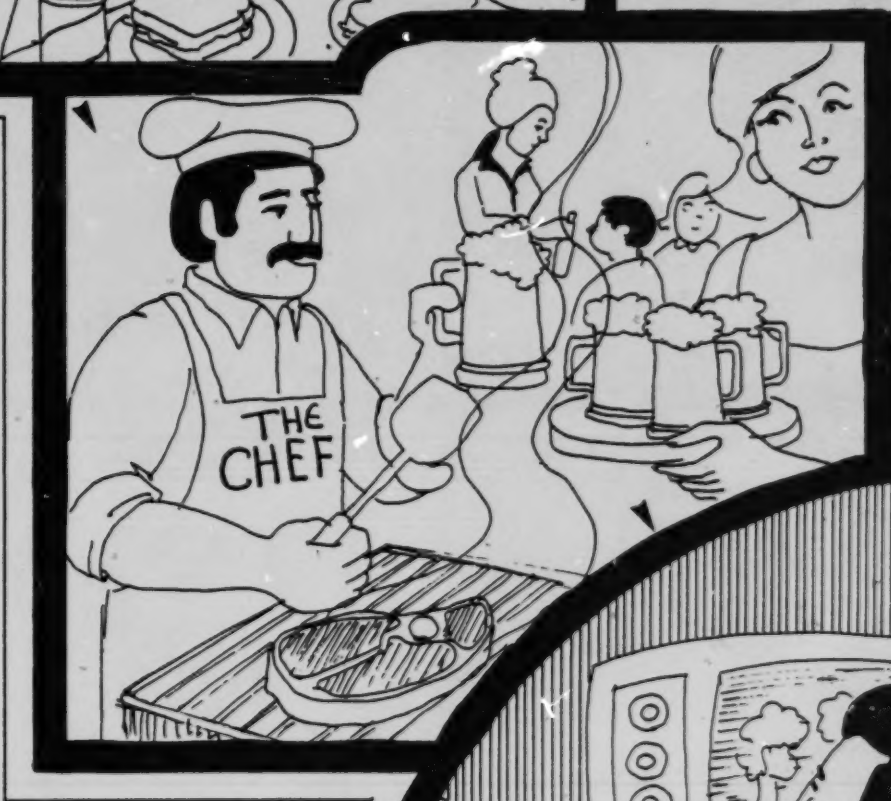








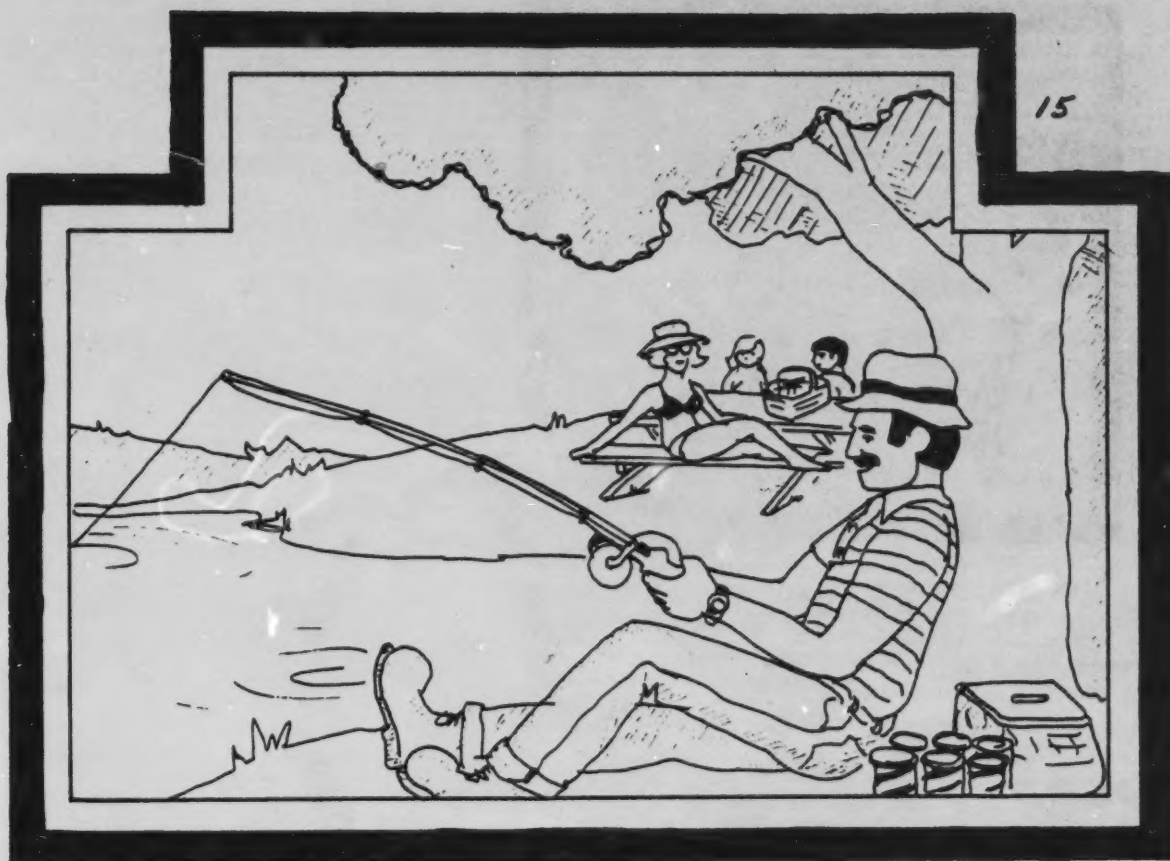
12



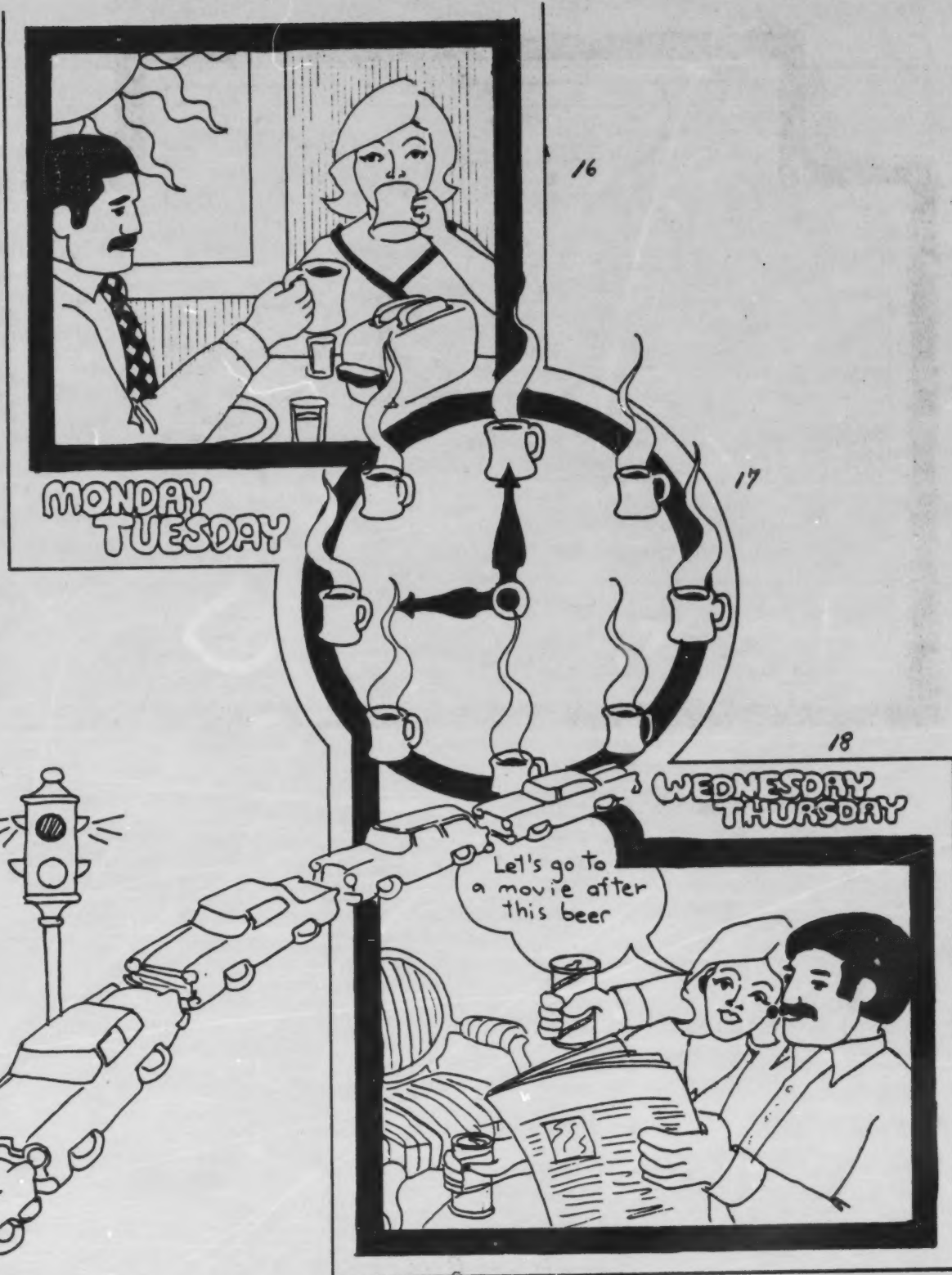
13

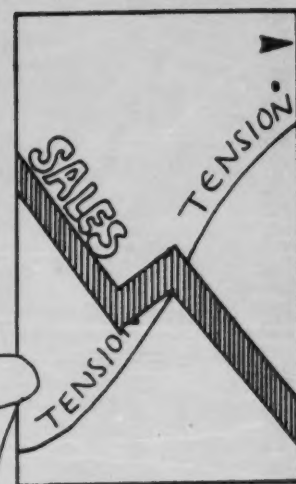


14



By Sunday night
he has a raised tension level
which will not return
to normal (ATL) until
Wednesday afternoon.





22

Something's
wrong with me.



Doc,
I've been
really tense
lately.



Gee
Mr. Abuse
you sure
are in the
dumps.



24

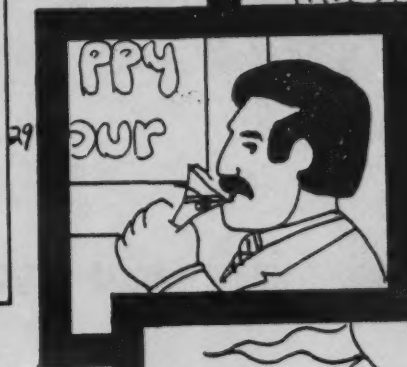
23

605



25

30



29



28

26



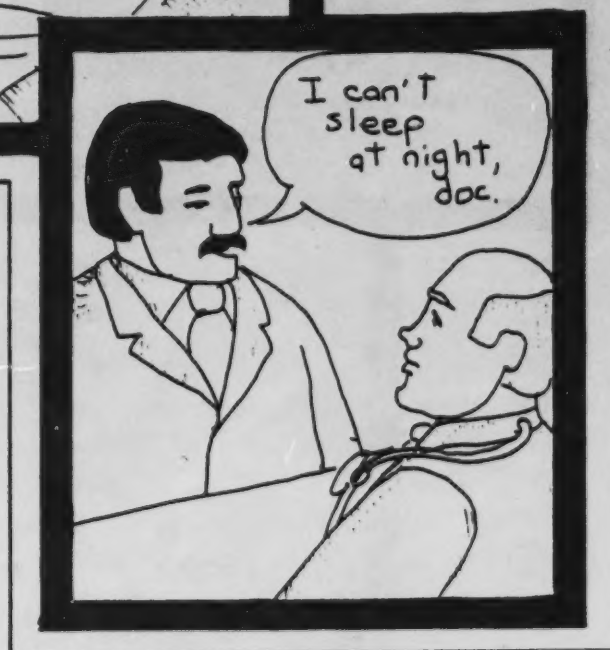
4 P.M.
Tension
Returns

27



293

606



This story illustrates a tragic and unnecessary pattern of life for millions of Americans.

CASE 1

ALAN E. NATED

A 16 year old who smokes marihuana daily and who "zonks" himself out on weekends with alcohol, quaaludes, and angel dust. He is involved in constant battles with his parents, particularly his father who has resorted in angry desperation to calling in the local police to "bust" his son and friends at his home. The son responds by seeking to increase his use of drugs and flagrantly stumbling around the house. Even his friends are starting to advise him to "cool it" which only increases his hostility and the amount of time he spends alone getting "ripped."

603

CASE 2

DONNA INTERVENE

A 26 year old woman working as a senior counselor at a drug counseling and education center has a history of drug use for about seven years. While in college she smoked marihuana on a fairly regular basis and used cocaine and psychedelics such as peyote and mescaline occasionally at parties. She continues to smoke marihuana, although somewhat more irregularly, usually on weekends with her boyfriend or other close friends. She has snorted only about a half dozen lines of cocaine in the last year and a half, primarily because of its increasing expense and unknown additives. She has stated that she has fond memories of tripping and if she could ever come across some good mescaline she would consider going to the country and tripping some weekend.

CASE 3

MRS. HERMAN ALOT

A 38 year old housewife married to a wealthy traveling sales representative. For the last three years she has developed a dependency on coffee and amphetamines. She has few friends and lives in a rural community about 40 miles from a large metropolitan area. She reports using amphetamines to keep her weight down and to feel better. She frequently reports feeling lonely and depressed the weeks her husband is gone. When her husband is home she rarely uses amphetamines. Marital problems are developing because of his absence and her "constant sleeping and lack of responsiveness."

CASE 4

BARB E. TURATE

A 17 year old woman is dependent on reds also uses alcohol and hallucinogens when she can get them. She's a college freshman and doing well in school. She doesn't think she has a problem but she was concerned about feeling anxious when she was unable to find her reds last weekend. Her roommate, Dee Tox is concerned but doesn't know what to do.

611

CASE 5

IAN D. COSMOS

A 35 year old male who uses marihuana occasionally and alcohol daily but who has previously made extensive use of LSD. He feels he's "burnt his mind out" on LSD (he made about 300 trips) in the 1960's. He has no job and poor social skills. He finds it difficult to relate to others and finds it difficult to concentrate on a topic for more than a moment. There is no way of telling if his lack of concentration preceeded his LSD use.

612

CASE 6

JUAN MORPHER D'RHODE

A 33 year old English professor at a large Midwestern university has been an alcohol abuser for the past three years. On weekdays during the school term, he rarely drinks more than a few beers or an occasional glass of sherry. On weekends, however, he consumes up to a gallon of scotch or rye beginning after his last class on Friday and drinking steadily until Sunday evening when he collapses into a fatigue and drink induced stupor. His young wife, Ann Abler, who is also on the faculty, has expressed concern about his weekend binges in the past but has recently begun joining him on hissprees.

613

CASE 7

GAR BAGEHEAD

A 45 year old male who spends much of his time high and who seems to use a variety of drugs indiscriminately with no discernible pattern. His history and current situation reveal considerable emotional instability and very poor social competence. He has been using drugs for approximately twelve years with periods of abstinence interspersed with periods of "binge" type abuse. He began using barbiturates in conjunction with alcohol and now additionally uses methaqualone, valium, marihuana, PCP, and occasionally dilaudid. He has had several psychiatric hospitalizations and has been diagnosed a schizophrenic. His treatment has indicated the prescription of a minor tranquilizer while in a day care program, but was discontinued when he was found to be continuing to use other drugs as a supplement.

614

CASE 8

EMMA MESS

A 31 year old woman who extensively uses a variety of street and prescription drugs, and is addicted to heroin. She is a divorced former insurance salesperson who has been addicted for just under two years. She is currently living alone and maintaining a job as a clerical secretary for a small business. She has had a long history of treatment failure ranging from individual therapy to a short stint in the Church of Eschatological Obfuscation, during which she remained abstinent for four months.

615

CASE 9

SUE DEDOC

A 71 year old female was widowed tow years ago. She has few friends and her family lives across the country. For the last year she has lived in a highrise for the elderly. Shortly after she moved she began using alcohol regularly and significantly increased her use of Valium® (both of drugs were used daily). She rarely leaves the apartment and is becoming more and more depressed. Her physician continues to renew her prescriptpion for Valium® because of her nerves.

616

MODULE VI: APPROACHES TO THE TREATMENT OF SUBSTANCE ABUSE

PERSPECTIVE

The purpose of this module is to provide information on the forms of treatment that are used to overcome chemical dependence.

CONTENT

Overview of Module VI (5 minutes)

Lecture/Discussion: Treatment of Opiate Dependence (30 minutes)

Lecture/Discussion: Treatment of Alcoholism (40 minutes)

Lecture/Discussion: Treatment of Nonopiate Dependence (10 minutes)

Lecture/Discussion: Drug Abuse Treatment Modalities: An Overview (40 minutes)

Small Group Activity : Decision Makers and Value Clarification (60 minutes)

Summary (5 minutes)

Total Time: 3 hours, 10 minutes

OBJECTIVES

Using the information presented in Module VI as criteria, at the end of this module, and without the aid of notes, participants will be able to:

1. Identify at least one rationale underlying methadone maintenance for treatment of heroin dependence.
2. Identify at least one principle of the Alcoholics Anonymous approach to alcoholism treatment.
3. Identify at least one characteristic of one of the phases of an alcoholic's movement toward recovery.
4. Identify at least three modalities applicable to the treatment of an opiate dependent person.
5. Identify at least one advantage and one disadvantage of a therapeutic community in terms of treatment.

AN OVERVIEW OF TREATMENT FOR OPIATE AND NONOPIATE DEPENDENCE

Virtually all forms of individual therapy have been tried in the treatment of chemical dependency. During the 19th century, treatment for drug abuse was generally handled by private physicians and usually involved simply helping the patient through withdrawal. The widespread medical use of morphine for relief of pain during the Civil War resulted in morphine addiction among thousands of soldiers. Many of these "medical addicts" were withdrawn successfully from morphine when it was no longer needed for pain relief, but many others continued compulsive use of the drug. The easy availability of opium in the form of patent medicines resulted in addiction among thousands of other people—many of them rural housewives.

Heroin, a semisynthetic derivative of morphine, was developed in 1898 as a potent pain killer and cough suppressant, and was believed to be nonaddictive. Because heroin relieved morphine withdrawal symptoms, it was advertised as a cure for morphine addiction. Several years passed before medical authorities discovered that heroin was an addictive as morphine.

In the late 1800's most physicians regarded drug addiction as a physical disease which could be cured by gradually reducing use of the drug (withdrawal). The psychological element of addiction was ignored largely and, because very little followup was done on patients after treatment, the significance of the problem of relapse was not recognized. The problem of drug addiction did not become a public health issue until the early years of the 20th century when the public became increasingly aware of the link between narcotics and organized crime, as well as the growing incidence of drug addiction among physicians.

The Harrison Act, passed in 1914, restricted the distribution of opiates and cocaine to registered physicians and dentists for use only in the course of professional practice. The Federal Government interpreted the law as prohibiting doctors from prescribing maintenance doses to addicts, and as a result numerous indictments were brought against honest physicians who believed that maintenance was the only useful treatment for dependence, as well as the notorious "script" doctors who indiscriminately prescribed large doses of opiates. After 1919, when legitimate sources of narcotics were no longer available, thousands of addicts, particularly those in the larger cities, turned to the illegal market.

To deal with this new problem, the Federal Government encouraged large cities to establish temporary clinics for maintenance of dependent persons on doses of opiates with the idea of gradually reducing the dosage and eventually withdrawing the drug.

Of the 44 clinics which were established, some claimed success in gradually withdrawing patients, others merely provided maintenance, and several became notoriously careless in their distribution of opiates.

The poor performance of some of the clinics along with the condemnation of outpatient maintenance by the American Medical Association led the Federal Government to withdraw its support. The last of the clinics had closed by 1925. In the years that followed, the emphasis on prohibition appeared to solve part of the problem of drug abuse, particularly the danger of medical dependence which had resulted from prescribed drugs and patent medicines. However, a new pattern of drug abuse had begun to emerge in the large cities. The declining population of mostly middle aged medical dependents was beginning to be replaced by a new group of young male users who preferred heroin to morphine.

From 1925 to 1935, treatment for drug abuse was virtually nonexistent. By that time the medical community was well aware of the extremely high relapse rate among chronic users, and a mood of discouragement prevailed. In 1929 the Federal prisons were receiving large numbers of drug addicts, Congress responded by authorizing the establishment of two drug abuse treatment hospitals, primarily as a means of segregating opiate dependents from other prisoners. The first Federal drug abuse treatment clinic opened in Lexington, Kentucky, in 1935; the second opened in Fort Worth, Texas, three years later.

Although the clinics were designed primarily for incarceration of Federal prisoners who were drug addicts, voluntary patients were accepted, and soon made up the majority of patients. The clinics withdrew patients using decreasing doses of morphine, followed by a period of inpatient treatment which was supposed to last several months. Voluntary patients were free to leave whenever they wished, however, and most of them did not stay to complete the full treatment period. Followup studies showed that a substantial majority of those patients relapsed to drug use. The Federal clinics at Lexington and Fort Worth were the only major drug abuse treatment facilities in the country until 1952, when the State of New York opened Riverside Hospital for juveniles in response to the alarming increase in drug addiction among teenagers in New York City. Treatment involved hospitalization for a period of 18 months or more, followed by a period of outpatient care. Because the hospital had actual custody of the juveniles for up to 3 years, most of the patients completed the full treatment regime. Several years later, however, a study showed that approximately 95 percent of the patients relapsed after treatment, and Riverside was closed in 1963.

The explosion of drug addiction in the urban slums in the 1950's and 1960's led to a search for more effective treatment methods. Synanon, founded in 1959 by a former alcoholic named Charles Dederich, was the first in a series of residential treatment programs called therapeutic communities. These programs emphasized the psychological element of drug addiction and attempted to modify the addict's character through group therapy and reinforcement of good behavior. The communities were not designed to treat large numbers of people at one time, and many who entered the programs dropped out after a short time. However, the novelty of the method and the dramatic success of the few who remained in the communities attracted the attention of the public. The therapeutic community and group therapy were soon recognized as important methods of treatment.

In 1961 and 1962, California and New York established statewide treatment programs for drug addicts. The programs were modeled after Lexington, but were expected to be more successful because aftercare was compulsory. Treatment involved withdrawal, psychiatric care, and group therapy--beginning with a period of mandatory hospitalization. After several years, the results of both programs were disappointing. As in the case of Lexington and Riverside, the programs were believed to have very high patient relapse rates.

In 1964, Marie Nyswander and Vincent Dole began an experimental drug maintenance program in New York using methadone, a synthetic opiate substance. Hospitalized patients were gradually stabilized on a high daily dose of methadone. After stabilization, the patients were released and required to return to the clinic daily for their methadone dose. They also received individualized counseling and support services. All the patients stayed in the program voluntarily, and most showed dramatic improvements in social functioning, in terms of employment or enrollment in school. Encouraged by this success, Doctors Dole and Nyswander expanded the program and enrolled about 4,000 patients over the next three years. In 1967, an independent evaluation of the program showed that 80 percent of the patients had remained in the program and showed significant improvements in social functioning.

The Federal Government then permitted the establishment of other experimental methadone maintenance programs. Subsequent experiments showed that initial hospitalization was unnecessary, a factor that reduced greatly the expense of the programs. Methadone programs then proliferated across the country, and by 1972 methadone had become one of the most widely used treatment methods. At about the same time that methadone experimental programs were beginning in 1965, researchers at Lexington began to experiment with the use of narcotic antagonists--drugs that counteract the effects of opiates without being addictive themselves. The antagonists had already clinically proved to be useful in treating cases of narcotic overdose and in detecting opiate dependent individuals. The main problems with using antagonists in the treatment of addiction was their short duration of action

and some unpleasant side effects, which discouraged, rather than encouraged, addicts to continue treatment.

In 1966, while methadone maintenance was still in the experimental stages, the Narcotic Addict Rehabilitation Act (NARA) (P.L. 89-793) was passed by Congress.

Title I of the Act authorized diversion to treatment before conviction for a restricted class of Federal offenders.

Title II provided for treatment as a sentencing alternative for a slightly higher class.

Title III provided for voluntary and involuntary civil commitment to Federal treatment facilities in localities where no adequate State treatment facilities existed.

Title I of NARA has been little used, apparently because of a lack of interest by U.S. District Attorneys and the restrictions on eligibility.

Title II has been used to a greater extent, but strict eligibility standards also prohibited its widespread use. However, as a result of Title II, the Bureau of Prisons has initiated a number of innovative treatment programs for a wider variety of drug dependent offenders.

Title III served primarily as a mechanism through which the Federal treatment facilities were made available to States and local communities where no adequate facilities existed.

In terms of current funding priorities, Title IV was the most important part of the Narcotic Addict Rehabilitation Act. Under Title IV, the Federal Government began to provide financial and technical assistance to States and cities for the development of drug abuse treatment programs.

Two other pieces of Federal legislation authorizing additional aid to State and local treatment programs followed during the next five years. The Comprehensive Drug Abuse Prevention and Control Act of 1970 (P.L. 91-513) further expanded community assistance programs to include all types of drug dependent persons and drug abusers. In addition to providing financial support for community based treatment programs, in recent years the Federal Government has encouraged development of programs that offer more than one method of treatment, referred to as *multimodality programs*.

The Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255) provided greatly increased Federal resources to develop community based, multimodality treatment centers throughout the United States. The Federal Government has also encouraged treatment programs to judge patient "success" by more flexible standards. In the past, total abstinence from drugs was regarded as the only criterion of success in treatment. Today, however, reduced drug use along with improved social functioning is regarded as a degree of success. The fact remains that no treatment method yet developed has solved, or promises to solve, all of the complex problems involved in drug abuse. There is still confusion and controversy about the nature of drug dependence and how society should deal with it. It is clear, however, that a variety of methods and approaches must be available to help the various types of drug abusers that exist today.

HOSPITALIZATION

Hospitalization was used to treat drug dependence in the 19th century, and the method was continued at the Lexington and Fort Worth clinics established in the 1930's. Treatment began with gradual withdrawal of the drug, by decreasing the dosage over a period of one or two weeks, until the patient was drug free. Withdrawal was followed by a period of inpatient care, usually lasting several months, during which the patient remained isolated from his former environment and from drugs, and received psychiatric counseling, psychotherapy, group therapy, or work therapy. The third stage of the hospitalization method consisted of a period of outpatient care in which the patient lived in his community but continued to receive counseling, psychotherapy, or vocational rehabilitation.

The State treatment programs of California and New York and the Federal NARA program, started

in the 1960's, used the Lexington model of hospitalization, although they tried to improve it. The precise degree of success or failure of these hospitalization programs is debatable, because followup studies had difficulties with data collection and definition of "success" or "failure" of treatment. Despite the fact that a mental health approach and professional therapy were used, the emphasis on security and isolation of the patients from the community resulted in a prisonlike atmosphere in many of the facilities. The term "civil commitment" has often been used to describe the hospitalization method because legal controls have been used frequently to confine patients to hospitals. Hospitalization is the most expensive method of treatment, and today it is generally believed to be the least effective method, in view of the high relapse rates of most hospitalization programs over the years. For these reasons the Fort Worth clinic has been closed; Lexington is now closed to patients--except those participating in research; and the NARA hospitalization programs presently are being phased out.

METHADONE MAINTENANCE

In recent years, methadone maintenance has been the most widely used method for treating opiate dependent persons. Most large cities have treatment programs that provide methadone detoxification and maintenance services after a diagnosis of opiate addiction has been made. Methadone maintenance programs have demonstrated the ability to attract and retain in treatment a large number of opiate dependent persons. In addition, since most methadone maintenance programs offer treatment on an outpatient basis, it is a markedly less expensive method than treatment which involves hospitalization or confinement.

The methadone maintenance technique developed by Dole and Nyswander used methadone in sufficient dosage to create in patients a "blockade effect." In other words, with this technique, patients became tolerant to the euphoric effects of opiates. For example, if a patient used heroin while receiving daily a large oral dose of methadone, he would not experience the usual euphoria that accompanies heroin usage. In many patients this "blockade effect" tended to discourage repeated illicit use of opiates. During the last ten years, however, many investigators have reported similar successful treatment outcomes for patients using smaller daily doses of methadone. This method has a particular advantage in that the patient is less dependent on opiates. For this reason many maintenance programs today use a lower daily dose of methadone, which is sufficient to prevent withdrawal symptoms although it does not completely "block" the effects of a sufficiently high dose of heroin.

Federal regulations now require that methadone maintenance programs provide additional treatment such as group therapy, family counseling, vocational training, and social services. Eligibility is limited to persons 16 years of age or older who can demonstrate that they are opiate dependent and have been for at least two years. Persons between the ages of 16 and 18 must have parental consent and must have tried and failed at least two attempts at detoxification.

Although the ultimate goal of methadone maintenance treatment is eventual withdrawal from methadone and elimination of dependence on any drug, for some individuals maintenance may continue for months or years. The general theory behind methadone maintenance is to relieve the craving for heroin while engaging the patient in additional treatment aimed at helping him work out a better way of living. In addition to maintenance, methadone programs also provide outpatient detoxification. This treatment involves administering decreasing doses of methadone over a period ranging from a few days to a few weeks for the purpose of relieving withdrawal symptoms. Some addicts volunteer for detoxification in an attempt to become drug free. However, statistics reveal that detoxification alone is usually unsuccessful. Most patients either relapse into heroin use or enter methadone maintenance programs after detoxification has failed.

Critics of the methadone maintenance method point to the fact that methadone does not cure drug dependence but merely transfers dependence from one drug to another. Another criticism is that some patients begin chronic abuse of other drugs such as alcohol, amphetamines, barbiturates, or cocaine while enrolled in methadone maintenance treatment. In view of these deficiencies, current Federal policy emphasizes that entry into methadone maintenance should be voluntary and that drug free treatment should be offered as an alternative.

THERAPEUTIC COMMUNITIES

Therapeutic communities are residential treatment programs which attempt to deal with the psychological causes of addiction by changing the addict's character and personality. The first therapeutic community for drug addicts was Synanon, founded in 1959. The techniques used were modeled after those of Alcoholics Anonymous, which involved repeated confessions, group interaction, and mutual support among the members. During the late 1950's and early 1960's, the concept of group therapy grew in popularity throughout the country, and as therapeutic communities developed they adopted it as a major technique. The growth of therapeutic communities paralleled the growth of communes, and some of the cooperative spirit of the communes was incorporated into them. The idea of a group of people living and working together for their mutual benefit was, and still is, a basic tenet.

Although therapeutic communities are often managed by former addicts and do not ordinarily have mental health professionals on their staffs, the treatment method is based on two techniques of group psychotherapy. The first technique is confrontation, or encounter group therapy, in which the addict is forced to confess and acknowledge his weakness and immaturity. The second technique is "milieu therapy" in which the addict lives and works within a hierarchical social structure and may progress upward in status as he demonstrates increased responsibility and self discipline. The principles of behavior modification, or conditioning, are applied constantly within the community in the form of reinforcement of good behavior and punishment of bad behavior.

The time period for treatment varies from one therapeutic community to another. Synanon is a permanent community where residents may remain for life. Most of these communities require members to stay one or two years. The programs also vary in selectivity. In the older programs applicants were screened rigorously and only the most highly motivated individuals were accepted. The older programs also continue to be completely drug free, whereas some of the newer programs use methadone maintenance or both methadone and drug free therapy.

The problem with therapeutic communities as a treatment method is that they appear to be suitable for very few people. In fact, about 75 percent of those who enter them drop out within the first month. Members who remain in the communities and seem to respond to the treatment regimen are largely white and from middle class backgrounds. Some critics feel that the treatment of residents in a demeaning or punitive way, which is characteristic of many communities, goes against the principles of supportive psychotherapy. Because they are residential, therapeutic communities are more expensive to operate than drug free outpatient programs, even though many are operated entirely by members. In terms of results, however, therapeutic communities do not appear to be more effective than other drug free methods of treatment.

DRUG FREE OUTPATIENT TREATMENT

The treatment method that offers drug free services entirely on an outpatient basis is referred to as either drug free outpatient, ambulatory drug free, or outpatient abstinence treatment. Programs vary in the scope or level of treatment they provide, but usually some or all of the following services are included:

- Group or individual psychotherapy
- Vocational and social counseling
- Family counseling
- Vocational training
- Education
- Community outreach

Programs also differ in the degree of patient involvement in treatment. Some programs are social or "rap" centers where patients drop in occasionally. Others are free clinics

providing a range of health services. Some programs provide structured methadone detoxification and monitor patient drug use by urine analysis throughout treatment.

Little evaluation has been done on this method of treatment since program records often omit data on patients who drop out of treatment early. Most experts believe that these programs do help some people but that the attrition rates are very high. It appears that drug free outpatient treatment may be more effective with youths who are experimenting with drugs than it is with hardcore addicts.

MULTIMODALITY TREATMENT

In recent years some treatment programs have adopted a multimodality approach in their method of treatment. This approach has the advantage of offering the patient a choice among alternative treatment regimens. Some patients respond better to a particular method of treatment than to others; and in a multimodality program, patients may be transferred easily from one type of treatment to another. The larger multimodality programs may include methadone maintenance, detoxification services, inpatient and outpatient drug free treatment, and a therapeutic community. The Federal Government today gives strong support to community based multimodality approaches to drug dependence treatment.

TREATMENT FOR DEPENDENCE ON NONOPIATE DRUGS

At the present time, no specialized methods have been developed for treating dependence on drugs other than opiates or alcohol. There is no chemotherapy, such as methadone maintenance, for treating abuse of the nonopiate drugs which include amphetamines, barbiturates, and hallucinogens. These drugs are often referred to as soft drugs as opposed to hard drugs (opiates). This term is often misleading in that it implies that these drugs are less harmful. In fact, they are often equally as addictive as hard drugs and in some cases more life threatening. For example, abrupt withdrawal from barbiturates is much more life threatening than withdrawal from opiates; for that reason, withdrawal from barbiturates requires hospitalization.

Simultaneous use of more than one drug sometimes produces serious adverse reactions, including accidental (or intended) overdose. People who abuse two or more drugs, either simultaneously or alternately, are often referred to as polydrug abusers.

Emergency treatment, usually called crisis intervention, is sometimes required for acute adverse reactions resulting from use of nonopiate drugs. For example, adverse effects of amphetamines and hallucinogens sometimes produce paranoid or violent behavior. Hospital emergency rooms can provide treatment in such emergencies, as well as in overdose cases.

However, during the late 1960's when soft drug use was spreading rapidly, many young drug users were reluctant to go to hospitals, fearing trouble with the authorities or the hospital environment itself. As a result, free clinics were set up in many cities to provide an alternative to emergency room treatment. Since 1967 when the Haight-Ashbury Free Clinic opened in San Francisco, more than 250 free clinics have been established across the country. These are staffed by doctors, psychologists, and others on a volunteer basis, and provide a variety of general medical and social services in addition to treatment of drug abuse emergencies. For those experiencing adverse psychological reactions to drugs, they also offer a calm, supportive environment and reassurance, or "talking down," by an experienced staff member,

In addition, many crisis intervention programs operate telephone hotline services which provide information, referrals, and counseling on request. Most crisis clinics have very little followup on patients, since they are primarily concerned with immediate problems. Many of the patients treated are young people experimenting with drugs rather than chronic heavy users. It is generally believed that crisis centers have little lasting impact on those who are compulsive drug users. In recent years, some centers have begun to offer long term psychotherapy, as well as emergency services, in an attempt to alleviate the underlying psychological problems associated with chronic drug use. Some of the larger programs now serve as community mental health centers, providing counseling and therapy for a broader range of social and psychological problems.

OTHER TREATMENT APPROACHES

Since no one method of treatment has proved to be the answer to the drug abuse problem, research and experimentation are being conducted on a wide variety of potential treatment methods.

Relaxation Methods

Many chemically dependent persons have difficulty relaxing during the early phases of their return to abstinence. Various means have been attempted to aid them in relaxing. These include selfhypnosis, desensitization techniques, transcendental meditation, religious meditation, biofeedback mechanisms, and electrosleep. Despite the difference in nomenclature, theoretical orientation, and technical paraphernalia, the goal is the same: to rid the patient of muscle tension, a feeling of anxiety and dysphoria, and to alleviate insomnia and other psychophysiological disorders.

Transcendental Meditation

As taught, TM requires meditators to sit comfortably with their eyes closed for 20 minutes twice a day and repeat a Sanskrit sound or "mantra" silently to themselves. The physiological state which is induced has been linked to deep relaxation accompanied by mental alertness and is marked by a slowing of the heart beat, increase in skin resistance, reduction in oxygen consumption, and lowered rate and volume of respiration.

Biofeedback

Preliminary studies of biofeedback have focused almost entirely on its role in the treatment of psychosomatic disorders. It has been used with conditions as migraine headaches and hypertension. In the addictions field, its clinical use as a relaxation technique is based on the principle that many chemically dependent people consume alcohol or other drugs to reduce tension or relieve depression. During biofeedback training, polygraph equipment is used to display or "feedback" information on individual physiological responses by transforming them into electrical signals amplified into an auditory or visual display. Experience with biofeedback in the treatment of alcohol abuse suggests that by learning to control such variables as blood pressure, pulse rate, skin temperature, muscle tension, and brain activity, the alcoholic may be able to induce a relaxed state voluntarily, without resorting to chemicals. An extension of this theory provides that achieving mastery over his physiological responses acts as positive reinforcement of the alcoholic's ability to regain control over his drinking behavior.

Narcotic Antagonists

Over the past decade considerable research effort has focused on a class of drugs known as narcotic antagonists. These drugs counteract the effects of opiate drugs on the body, including the euphoria, or "high," but unlike methadone, they do not cause physical dependence. This ability to reverse the effects of opiates has made them useful in treating overdoses of narcotics.

Research is being conducted on the use of narcotic antagonists in helping addicts to remain abstinent after withdrawal. One problem is that some antagonists have unpleasant or possibly harmful side effects. Another problem is that all of them are relatively short acting, and must be administered daily. For these reasons, participation in a treatment program using antagonists requires a high degree of motivation.

Scientists are attempting to develop a longer acting antagonist which would be effective for several days or weeks. It is possible that such an antagonist could be very useful in helping the addict who has been rehabilitated while on methadone and is motivated to be detoxified and remain drug free.

Two kinds of narcotic antagonists are used: partial antagonists and pure antagonists. The partial antagonists are nalorphine (Nalline®), pentazocine (Talwin®), cyclasocine, and levallorphan. The results of antagonizing the analgesic response to morphine with a narcotic

antagonist such as nalorphine are complicated. Studies of nalorphine suggest that it is a competitive antagonist because the degree of antagonism increases as the dosage of the antagonist increases to a certain point and then declines with doses beyond that level.

Cyclazocine antagonizes the analgesic effects of morphine but apparently is significantly less effective in antagonizing morphine-induced respiratory depression than either nalorphine or levallorphan. It is also known to antagonize the emetic and nausea producing effects of morphine, which may be offset by the fact that it causes constipation in humans. The anticonvulsant effects of levallorphan are numerous. It has been described as five to eight times more effective than nalorphine in antagonizing narcotics induced respiratory depression. Levallorphan is also an effective antagonist for the analgesic effects of morphine, effects on circulation, and hyperglycemic effects, and is completely effective in antagonizing the antidiuretic effects of morphine.

Pentazocine is considered a very weak antagonist and has been clinically useful as an analgesic despite its shorter duration and one half to one sixth the potency of morphine.

The pure antagonists are naloxone and naltrexone. Naloxone is a relatively short acting compound, with a narcotic blockade lasting only four to six hours at normal dosages. It is also relatively ineffective when administered orally. The high cost of a single 100 mg oral dose required to block the effects of 40 mg of heroin taken intravenously is prohibitive. Because of its potency, and longer duration of action, and oral effectiveness, naltrexone is definite advantages over naloxone in the treatment of heroin dependence.

The antagonists have four basic clinical uses:

- They are useful in the treatment of narcotics addiction.
- They produce analgesia (a state of not feeling pain).
- They can be used to diagnose narcotics.
- They are effective antidotes for narcotic analgesic intoxication (blocking of narcotics).

Acupuncture

The pioneer in the use of acupuncture to treat drug addicts is neurologist H. L. Wen from Hong Kong. Research on this method was first reported in 1973. Dr. Wen's original method was to relieve the withdrawal symptoms of heroin and opium addicts through controlled electrical stimulation applied to acupuncture needles inserted at specific points in the "concha" region of the addict's ears. "There is little doubt that one treatment with electro-acupuncture for 20-40 minutes, without the administration of any drugs at all, will dramatically alleviate the symptoms of acute withdrawal in any drug addiction," concluded British surgeon Margaret A. Patterson after a 1974 study using a slightly refined version of Dr. Wen's method.

In a double blind study of 25 alcoholics and drug addicts completed in 1977 Toronto General Hospital psychiatrist Albert Leung found auricular acupuncture to be more useful in treating individuals with alcohol problems. A subsequent study by Dr. Wen indicates, however, that electro-acupuncture may have an advantage over methadone as a withdrawal agent. Comparing two groups of 35 female heroin addicts, the Hong Kong acupuncturist found the average withdrawal time for those treated with electro-acupuncture was eight days versus 14 for those on methadone. After a one year followup, the acupuncture group also had a higher abstinence rate.

Experiences with this method have also focused on the need for followup rehabilitation programs. According to Dr. Patterson: "There is danger in the fact that the heavy drug user brought rapidly off drugs by electro-acupuncture stimulation must confront the reality that his life, being totally drug oriented, is now a blank." Researcher Dr. M. P. Lau of the Addiction Research Foundation poses the question of whether decreasing the suffering of the addict during withdrawal might act as a stimulus to further drug taking and a higher incidence of addiction. "If it turns out to be true that acupuncture induces psychologically

beneficial effects in man," he adds, "the human psyche would work in such a way that one would run the risk of becoming (psychologically) addicted to acupuncture. Tolerance may also develop."

Behavior Modification

This approach has been employed on a limited basis over the last few decades. It consists of linking a punishment to undesirable behavior (such as drinking or not engaging in social interaction), or a reward to desirable behavior (such as sustained abstinence or social interaction). Among individuals who are employed, married, and belong to middle or upper classes, it has been fairly successful. Adverse conditioning is often called the punishment approach. The techniques vary widely.

In one technique, the patient is induced to imagine uncomfortable or adverse experiences or perceptions (such as vomitus, nausea) in association with thoughts about drinking or taverns or the taste of alcohol; no physical means are used with this approach.

Sometimes somatic therapies are applied. For example, a patient may be primed with disulfiram and then given alcohol to drink, thus inducing a disulfiram reaction.

In a second method, a compound containing ipecac is given, followed immediately by a drink of alcohol; the ipecac induces severe vomiting within several minutes.

A third approach involves electric shocks (short of producing tissue damage) coupled with the drinking or drug using behavior. Long term studies have shown the efficacy of these methods, but they have not been compared to other treatment methods.

Reinforcement of abstinence and social interaction has also been employed. If the patient chooses not to use alcohol or barbiturates, or to attend group therapy sessions, "points" are accumulated. These can then be used to "purchase" group walks outside of the treatment setting, use of the telephone, or items at a canteen.

Elaborate "contracts" have been used on an outpatient basis with married couples or other family members, such as parents and a chemically dependent offspring. In the case of a married couple, both partners experience rewards (in the event of abstinence) or punishment (in the event of chemical usage). The couples themselves determine the rewards before agreeing to the final contract form. An effective "punishment" might be the donation of a sum of money to an intensely disliked social or political organization. The "rewards" ordinarily consist of behaviors or material objects which the partners give to one another in the event of abstinence, but are not exchanged in the event of usage. This approach has been found to be useful after residential treatment during the early months of return to abstinence. The presence or absence of alcohol or drug usage must be ascertained by regular blood or urine tests. A few case reports indicate short term benefit to this method, but again long term controlled studies have not yet been done.

Education, Training

Virtually all treatment programs educate the patient and the family regarding the chemical dependency syndrome. They learn about early signs of chemical dependency, its effects on behavior and on the family, and the usual outcomes of the chemical dependency syndrome if interventions are not instituted. While the importance of this education has not been tested formally, most individuals active in this field believe that patients and their families gain considerably from learning about their disorder. Some patients also benefit from special training involving their own behavior and interpersonal relationships. For those frustrated by or inadequate in their role as mother or father, parent effectiveness training can be beneficial. For excessively passive or superficially conforming individuals, assertiveness training can similarly help in dealing with their lives. People who become incapacitated with chemical dependence during their adolescence or early adulthood may not have saleable skills or a stable employment history. Although chronologically and legally they may be adults, they are unable to achieve economic autonomy and support themselves in society—a major criterion for social maturity. Until they can attain economic autonomy, abstinence per se will probably not improve their lifestyle or increase their self esteem.

Such individuals need access to a variety of resocialization programs including formal education, vocational training, on-the-job training, sheltered workshops, work study programs, and industrial therapy.

Occupational and Industrial Programs

Manifestations of chemical dependency usually appear fairly early at work. These include regular Monday morning absenteeism, repeated Monday morning "flu" symptoms (due to withdrawal), frequent unexplained absenteeism, appearance of accident proneness, problems with supervisors and fellow employees, and decreasing job efficiency. Thus, work is a logical place to institute early case finding.

Over the last decade many large corporations, unions, professional groups, and government offices have instituted early case finding programs. The central figure in these programs is usually a chemical dependency counselor who works closely with union shop stewards, management, and the industrial health department (or private physician) in order to assess the patient, contact the family, and initiate treatment. Intervention by the counselor often occurs at a time of crisis, when the patient's continued poor job performance is about to result in imminent termination of employment. Offered the alternatives of treatment versus job termination, most individuals are willing to collaborate with a treatment program. In addition to motivating the patient for treatment, these programs also help keep the patients' jobs available until they are able to work. Once the employee has returned to work, the program personnel can assist in follow-up. After AA meetings are held at the union, on the company's grounds, or at the professional groups' association offices. These programs have proven to be an advantage both to industry and to chemically dependent persons. They help retain valuable employees with good work records, so that the employer benefits from their experience and continued productivity. Industrial programs also play an invaluable role in maintaining access to employment for the chemically dependent person.

Self Help Groups

In many instances these activities interact with professional or institutional treatment activities, with referrals in both directions. Both professional treatment and self help activities can occur simultaneously (although, of course, the clinician should be informed about the self help activities). In some instances the "belief system" of some self help activities has been such that seeking help from professionals or institutions is discouraged; however, this is now increasingly uncommon.

Alcoholics Anonymous was begun four decades ago by a few chemically dependent men, one of whom was a physician. Its membership now numbers in the hundreds of thousands, and it exists in every state in the nation and many countries of the world. It is a self supporting organization, the goals of which are essentially a return to abstinence and control over one's own life. This is accomplished by way of the "Twelve Steps," a guide for return to abstinence. Numerous training facilities and short term courses are available, so that members can become counselors on alcoholism. AA meetings ordinarily take place weekly. Regional or "open" meetings (i.e., for relatives of members and for nonmembers) may convene monthly. Members are urged to attend at least one weekly meeting. They may attend several meetings within a week, at groups located in different neighborhoods, or at meetings oriented for different professional or work groups. Those whose jobs require travel can attend meetings in other countries or states. In addition to the ritual aspects of the meetings, there is a fellowship recreational aspect that does not involve drug usage (if one excludes caffeine and tobacco--both of which are ordinarily consumed in great quantities at most meetings).

Alanon is an AA-sponsored group for the close relatives or friends of chemically dependent persons (most members are spouses). Alateen is for the adolescent children of chemically dependent parents. These groups provide invaluable support in helping the family through the crises associated with the syndrome chemical dependency and its treatment. Moreover, they educate the family to the chemical dependency syndrome and help them obtain a better perspective of their chemically dependent family member. They also inform members regarding how their own behavior might either exacerbate or relieve the chemical dependency syndrome.

Technical Aids: Telephone, Audiotape, Videotape

The telephone has been used as a followup technique after residential therapy. Frequency of telephone contact varies from daily reports immediately following discharge, to weekly or monthly reports later on. Therapists have used this approach in rural settings where patients live a great distance from therapeutic resources, and with the elderly or physically incapacitated who have difficulty coming to a treatment facility. Relatives, friends, and fellow workers can also be contacted in this way to assess the patient's post treatment course.

Videotapes have been taken of patients in order to be viewed later by them. Events used for "videotape feedback" have included the patient's appearance and behavior while intoxicated at the time of admission, family conferences, psychotherapeutic sessions (either individual or group), and psychodrama. Most therapists concur that merely showing the patient a videotape of himself while intoxicated is a demeaning experience that does little to enhance the person's already low self esteem. If the patient's condition upon admission is shown, then subsequent improvements during the course of treatment in appearance and behavior should also be shown. The latter method demonstrates marked improvement to the patient and enhances self esteem and self confidence. Videotape feedback of psychotherapeutic sessions is also useful, especially when the patient has the opportunity to discuss the transactions viewed on tape. Audiotapes of psychotherapy sessions can also be reviewed by patients and later discussed with the therapist. They have also been used for learning relaxation or for desensitization. In the latter cases, the patient listens to a tape of the therapist's voice.

High Risk Group Activities

In various treatment programs chemically dependent persons have engaged in a variety of risk taking activities. These have included sky diving, "hard rock" mountain climbing, and survival by oneself or in a small group for a number of days or weeks in the wilderness. Such activities have been designed to bolster two deficits widely found among chemically dependent persons: (1) difficulty in trusting others; and (2) low self confidence. In all of these activities one's very survival depends upon reliance on others. Once an individual has been through these experiences and survived, self esteem and self confidence seem to be enhanced. None of these activities has been used in isolation. Rather they are adjunctive modalities usually employed along with residential treatment, such as the therapeutic community, halfway house, or longterm residential care. No formal evaluations have been reported.

Treatment is not the end of the road. It is the beginning of a process of turning an individual around from a self destructive existence to a productive, self sufficient life. Treatment programs must help the ex addict find and adopt alternatives to his old way of life. A range of rehabilitation options must be available to each client. Some individuals may need basic schooling, others vocational counseling or skills training. Some may need transitional supported work while others simply need a job. Goal oriented, realistic, positive counseling should reveal what a client needs. Ideally, the range of options should be available to all individuals. The diversity of treatment methods reflects the present lack of precise knowledge as to the nature of drug addiction and abuse. Uncertainty still exists regarding the causes, whether or not it is an "illness," the degree to which the condition is physical or psychological. Policymakers continue to debate these issues while research is conducted to increase our knowledge of this complex social problem. Meanwhile, even though treatment programs across the country are not "curing" some patients of the condition of drug dependence, nonetheless, for the majority, they are providing support and a marked degree of social rehabilitation for better functioning and a better life.

Treatment Methods for Heroin Addicts: A Review

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INTRODUCTION

Recent developments in the field of heroin addiction form another chapter in the history of science illustrating the essential humanism in adopting an analytic rather than a theological or moral stance toward a major problem for social, legal and psychiatric perspectives on heroin addiction have changed remarkably in the last two decades. Where there was only apathy and hopelessness there is now a feeling of meaningful movement. The effective catalyst seems to have been the realization that heroin addiction should be regarded as a disease and not as a crime or a moral affliction. The pioneering work of Dole and Nyswander,¹ who demonstrated that methadone may be used to rehabilitate chronic heroin users together with the work of Charles Diderich, who developed the first therapeutic community, gave tremendous impetus to such a point of view and it is now formalized in law in many states. Currently methadone is used in the treatment of heroin users in most major urban areas in the country and the therapeutic community model is also widely used.

Repeated evaluations of Dole and Nyswander's work have corroborated the essential findings: Methadone if combined with a program of rehabilitation can be effective in aiding large numbers of addicts: (a) to abolish or to decrease greatly the use of narcotics; (b) to

work at a legitimate job; (c) to abolish or to decrease greatly the need for engaging in criminal behavior; (d) to relate to spouse and children in more desirable ways; and, (e) to experience a real increase in self esteem and in the esteem in which they are held by other people.

Controversy still surrounds the use of methadone despite the general acceptance in the medical world of Dole and Nyswander's approach. There is also controversy regarding the effectiveness and the role of therapeutic communities in treatment programs. In this paper we will examine the major methods of treating heroin addiction, review controversial issues and attempt to indicate the present status and future directions for each of the treatment methods considered.

The reader should bear in mind that despite the repeated efforts of competent and experienced specialists in the field no satisfactory definition of addiction has been created. The World Health Organization and the American Psychiatric Association have decided on the simple phrase Drug Dependence—Heroin to describe what some experts (Jaffe,² for example) prefer to think of as a "psycho-social pattern of compulsive drug use." We want to emphasize that the vantage point of the observer determines what definition is useful. The public health official or researcher may do well with the term Drug Dependence—Heroin. The person responsible for treatment may find it more useful to be reminded by his definition that under most circumstances the use of heroin is compulsive, i.e., the patient cannot easily elect or in many instances may not have any degree of choice in deciding to seek or not to seek heroin. Ideally the definition for the student should help him bear in mind

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that the reasons for beginning heroin addiction are quite different from the reasons for maintaining the pattern. In general we subscribe to the view that the compulsion experienced by the addict is substantially but not solely determined by real or anticipated withdrawal symptoms. However the fact that psychological and social factors are always relevant in drug related behavior cannot be repeated often enough. Beecher's statement that 70% of the analgesic effect of morphine is pharmacologic and 30% due to psychological factors illustrates the point well. It should be clear from the following review that the definition of the problem is by no means an academic matter; who to call a patient, how to identify him or her and what constitutes success or failure in treatment are matters of real import.

METHADONE

1. Methadone Maintenance.—Methadone is useful in rehabilitating heroin addicts because it suppresses withdrawal symptoms and reduces or eliminates narcotic hunger; it can be taken orally, its effects last a whole day, it does not usually produce euphoria or lassitude, and it wholly or partly, depending on dose, blocks the effects of heroin. In contrast heroin: (a) usually is taken intravenously thereby creating danger of infection (most addicts have abnormal liver function as a consequence of use of unsterile needles); (b) suppresses narcotic hunger for only a period of hours (most addicts "shoot" three or four times a day if they can); and, (c) sometimes produces a high or a "nodding" state in which motivation for work and/or relating to other people is decreased or abolished.

There are no serious side effects from using oral methadone; if patients do have side effects they generally have one or more of the following: sleepiness, constipation, excessive sweating and change in libido—usually a decrease but occasionally an increase. Patients who have taken methadone for many years have not developed major difficulties so that it appears that the drug is safe for both short and long term use even if patients take "high" doses, i.e., in excess of 100 mgms. per day. The approach under consideration in these paragraphs is termed Methadone Maintenance because an open ended therapeutic contract is created with a patient in which it is understood that he will be given daily methadone, i.e., be "maintained" until some unspecified future time. At present such therapeutic contracts can extend over periods of many years.

The pharmacologic advantages of methadone would not have been realized if there had not been a reassessment of what treatment goals are desirable and possible for chronic heroin abusers. The experience in federal

hospitals³ is well documented and indicates that immediate and sustained abstinence for the addict seeking treatment is simply not a realizable goal; while the addict may "clean up" for a period of weeks or months in the hospital, when he goes back to his community his return to drug abuse has a 95% probability attached to it. When the goals of treatment programs changed from excessive preoccupation with drugs to a concern for the person treatment results began to improve. Given a patient's psychological realities and pharmacologic state what are achievable next steps for him or for her was and is the "right" question for most of the effective treatment methods for chronic heroin addicts today is a function of the fact that treatment efforts are not drug centered.

Treatment goals generating effective results in conjunction with the use of methadone are as follows: (a) return to legitimate employment; (b) cessation or substantial reduction in criminal behavior; (c) simple reduction of the amount of time an addict must think about drugs and a reduction in the amount of time spent in drug seeking behaviors; (d) involvement with a social system in which there is a positive reinforcement for relating to people—particularly family and other addicts in various stages of readjustment; (e) furnishing an impetus for living by internalized goals which many addicts who seek treatment generally feel substantial guilt about having abandoned. Not all of these goals can be reached by every patient seeking help; for some legitimate employment is not a relevant goal because of major medical disability, advanced age or need for training in acquiring marketable skills.

The use of methadone obviates the need for large sums of money to purchase heroin therefore a patient can—and is usually relieved to be able to—decrease his involvement in criminal activity. Most addicts do not derive pleasure or thrills from crime; almost without exception they report extreme fatigue from the seven day a week necessity of having "to get out and hustle". Occasionally one sees an addict who appears to want to be jailed so that he may escape the feeling of being "imprisoned" in the need for crime. It is a common misconception that various poor minority groups have incorporated a different set of values than is seen in middle class populations. Prohibitions against stealing, promiscuity and/or prostitution, dishonesty in interpersonal relations, etc., are internalized in these groups exactly as they are internalized in other groups. Stated differently, the values by which self esteem is determined are not substantially different from one social class to another; from a clinician's point of view there is as much variance within as between classes.

Many poor addicts have had fundamentalist religious orientations and have strict super-egos, a situation which insures that coincident with dishonesty and criminal behavior there is guilt and low self esteem. The feeling tone is apparent to the observer who notes that the most frequent complaint of the addict patient is applying for treatment is "I'm tired" "I'm sick of it" referring to the enervating, depressing cycle of crime and drug seeking which when established as a pattern is without pleasure and is often without feelings of any kind except fatigue. Drug abuse generally is associated with a decrease in social relatedness of all kinds and in particular sexual drives are suppressed. Some addicts will report that long periods in their lives—weeks, months, years even decades— were "empty" of anything except "hustling".

These observations help to explain a problem which frequently emerges during the early phase of treatment with methadone. Since it is no longer necessary to use his energies in drug seeking, the addict begins to have time and energy enough to realize that he has not the kinds of relationships with other people which he now finds he wants. Establishing or re-establishing friendships and love relationships in this period is necessary for successful rehabilitation. Unfortunately for many it is difficult. Help for the problem of relatedness and how to achieve it can be obtained through the group experience which is an integral part of effective rehabilitation programs for heroin abusers. Currently most experts feel that it is methadone, with its unique pharmacologic properties in combination with rehabilitation efforts which accounts for the successes achieved in treatment. Methadone alone or rehabilitation efforts alone do not appear to have anywhere near the impact of the combination.

In addition to methadone and group therapy, legal counseling, vocational rehabilitation and social services are elements in the major programs successful in treating chronic heroin addicts. Monitoring urine for narcotics and other drugs is also an integral part of current treatment programs for such testing discourages the patient from attempting to fool himself and his counselors about his real behavior; thus an honest basis is created for relationships both with himself and with those treating him. The frequency with which urine is tested varies in different programs and it varies with the stage of treatment. Early in therapy urine may be collected two to three times per week—later when a patient has established trust only spot checks may be employed.

Dose levels of methadone vary widely in methadone maintenance programs. Dole and Nyswander have used levels in excess of 100 mgms. per day. They feel that

such dose levels are useful because complete blockade of the effect of administered heroin is achieved. Since positive reinforcement for heroin use is thereby abolished the behavior should diminish in frequency. Jaffe (1969⁴ 1970⁵,) however feels that further studies are needed to establish optimal dose levels for he has data indicating that differences between high and low dose study groups are not great.

Contrasting the methadone maintenance approach with the so-called "English" system may serve to sharpen the picture of both.⁶ In England a physician writes out a prescription for narcotics which the addict takes to a drug store. The addict then fills the prescription and can regulate his dose and the frequency of drug administration. He is free to give away or to sell the drug if he chooses. Urine monitoring is not employed. In methadone maintenance programs, as noted above, urine monitoring is basic; the patient takes his medication under the direct observation of addiction rehabilitation counselors—at least until he has established a pattern of attendance in treatment and has "clean" urines for a number of weeks and/or other evidence for motivation.

Illicit sale of medication is much more difficult in methadone maintenance programs than in the "English" system and the amount of support given to a patient is of course greater in programs in this country. Most experts feel that our treatment approach is superior but it is important to keep in mind that our programs for the most part deal with voluntary patients. It may well be that the English system will be useful in dealing with the large population of addicts who do not want the kinds of treatment being offered at present.

Criteria for admission into methadone treatment programs are under review at this time. Earlier because of the experimental nature of methadone, patients had to be over 18, could not be psychotic or pregnant and had to have a history of failure in some form of treatment. Most clinicians feel that none of these criteria are beneficial in any way. They point out that the requirement of prior failure in treatment means that a patient has increased probability of arrest and imprisonment or overdose and death as a condition for involvement with an effective program. Pregnancy and psychosis if combined with heroin abuse increases rather than decreases the need for treatment. Preliminary work with adolescent heroin abusers suggests that the combination of methadone and rehabilitation may be beneficial for some patients in this population. It is clear however that the young heroin user with relatively recent onset of his or her abuse pattern constitutes a quite different problem from the older patient population presently deriving benefit from Methadone Maintenance. Younger patients

tend to be much more mobile socially and geographically; they tend to abuse many more drugs and their identity is not settled in the sense in which identity is settled for the population in Methadone Maintenance programs. All of which makes for new problems in treating these patients.⁵

Treatment results in major methadone programs suggest that there is approximately a two in three chance of success in treating voluntary patients; the criteria for success in treatment being those described above. Some of the patients included in the category of successful treatment are dropouts who return to treatment and are then able to rehabilitate themselves. The drop-outs who do not return to treatment or who return only to fail again constitute a substantial problem without a known solution. The ability to rehabilitate many addicts where this was once impossible has been such a striking advance that it has occupied the attention of all concerned. Now however there is enough energy to begin to look at the enormous problems that lie ahead. The virtues and the limitations of methadone are coming into sharper focus and the stage hopefully is being set for new approaches.

Controversy over methadone maintenance continues because of the uncertain nature of its effects over a number of years. Although it appears that methadone can be administered safely for at least seven or eight years we do not have definite studies demonstrating that this is true also of years nine, ten, etc. Without any particular rationale critics object to the necessity for sanctioning the administration of an addictive drug over a decade or more. Some feel that methadone has subtle tranquilizing effects and that long term use of such an agent might interfere with psychological growth. We have not seen this effect in our clinical experience probably because it has occurred in a program where "low" doses of methadone are employed.

Other critics feel that illegal redistribution of methadone may constitute a significant social problem in itself. Addicts have registered in more than one program thereby obtaining extra medication which they can sell; it is also possible for sociopathic addicts to establish themselves as "good" patients, to secure privileges of taking home several doses of methadone and then to decrease their habit by slow adjustment thus creating a steady supply of drug for illicit sale. At entrance to treatment it is necessary to have criteria to identify who is an addict; the control of sociopathic behavior by addicts with multiple registration in different treatment programs, together with FDS requirements dictate that criteria have to be set up. Urine monitoring for the presence of opiates, needle tracks, the physical signs of

acute use of heroin, e.g., pin point pupils and corroboration by staff that the prospective patient has used heroin are the basic criteria usually employed. In the instance of addicts who emerge from hospitals or jails "clean" but who know that they cannot remain that way and want methadone urine testing is, of course, without value. Clinical judgement is utilized in such cases.

Experience is limited with detoxification of patients who have been on methadone maintenance for years. Patients detoxified for disciplinary reasons have the same high rates of readdiction as was the case with hospital based treatment. From clinical experience it appears that detoxification on a voluntary basis probably carries a little higher chance of success than disciplinary detoxification but results of voluntary detoxification do not look promising from the perspective of applicability to large numbers of patients.

Because epidemiologic studies are so uncertain in the problem of heroin addiction we have no sound idea of how many heroin addicts there are and therefore no idea of what proportion are amenable to treatment. It is certain that substantial numbers of addicts—it may be that more are not reachable by known techniques than are—do not want and/or cannot use present methods of rehabilitation.

Before turning to other approaches it should be noted that Jaffe⁴ has demonstrated that all the major successful treatment methods can be combined in one program so that it is possible to apply what appears to be the most appropriate treatment for any given case. For example, the addict of long standing who is married, has children and a legitimate job is probably better served by Methadone Maintenance than by referral to a therapeutic community. When the modalities are varied treatment results should be improved. Jaffe also has experimented with the concept of methadone pre-treatment in which patients are given methadone and a minimum of clinical "input" prior to acceptance into crowded "regular" treatment facilities. The approach appears to be quite feasible. Final results however are not in. The best summary statement one can make about Methadone Maintenance is that it appears to be preferred by most addicts who are offered a choice between various treatment modalities and of course it offers a two in three chance of successful rehabilitation for voluntary patients. Until some breakthrough occurs Methadone Maintenance will probably be the most important therapy for heroin addicts.

OTHER TREATMENT METHODS UTILIZING METHADONE

2. Detoxification and Abstinence.—In this method

of treatment the patient is placed on methadone and then slowly withdrawn over a period of days or weeks with the idea of achieving and maintaining abstinence. Clinically one does not usually attempt the withdrawal outside a hospital ward or residential setting but a few patients have been "detoxed" "on the street" with success. It is clear from the Lexington experience that success in the detoxification-abstinence method necessitates involvement—probably on an open-ended basis—in a therapy program with all the services legal, vocational, etc. and guidelines, e.g., urine testing as are employed in Methadone Maintenance. Additionally, we know now that the treatment program must be based in the addict's community.

At present this approach does not have the general effectiveness of Methadone Maintenance but clinical experience suggests that for at least a few patients it may be useful. It must be emphasized that engagement in a program is the keystone of this approach and that it also requires rehabilitation over a period of years. Additionally the treatment system should be able to offer a rapid response for crises because patients who under most circumstances may be able to function independently may under stress need intensive short term help if they are not going to relapse.

This approach has not received the attention it deserves. However it is being tried and we can look for research reports on it in the near future. One of the drawbacks in this approach is that it requires more staff and a greater psychological "input" to the patient than Methadone Maintenance. There may not be enough funds to support this as a basic treatment method applicable to large numbers of addicts even if further studies should show that it can be effective.

A METHADONE CONGENER: ALPHA-ACETYLMETHADOL

Alpha-acetylmethadol, a congener of methadone, has the same set of effects as methadone differing only in that methadol is effective in relieving narcotic hunger and suppressing withdrawal symptoms for a two to three day period—in contrast to the twenty-four hour relief afforded by methadone. Preliminary testing indicates that methadol is safe and cannot be distinguished from methadone by patients or physicians blind to the medication being administered to a particular patient. If further testing confirms the results of prior studies methadol may be a significant addition to the clinician's armamentarium for it is probably desirable to suppress narcotic hunger for two to three days in many if not most patients in current treatment programs.

Methadol may furnish the means to study the role

of the addictive aspects of the medication in maintenance programs. Some critics feel that one of the reasons if not the most important reason for the success of methadone programs is that patients become addicted to methadone and that their motivation for involvement with the treatment program is largely a function of the fact of physiologic dependence.

Some clinicians would dispute such an analysis. Motivation for therapy is a function of the fact that many patients have a genuine desire for maturation. Most addicts report a substantial degree of ambivalence toward their habit at all stages in the development of the pattern. Their involvement with treatment appears to be continuation of the—at least intermittent—struggle to be free of the necessity to live by drugs. While physiologic dependence may be a factor in the holding power of methadone programs it does not appear to be the predominant reason for therapeutic success. However this important question can be settled only by research and methadol by virtue of its long duration of action may be a tool by which such research may be accomplished. Since most of the effects useful in treating narcotic addicts are attributable to the 1 isomer of the alpha-acetylmethadol racemate research is being conducted on the pure 1 form. Methadol can be substituted for methadone and vice versa. It is now possible therefore to create more flexible pharmacologic regimens than has been the case heretofore.⁹

NARCOTIC ANTAGONISTS

Narcotic addiction can be explained by the principles of classical and instrumental conditioning. Viewed from such a theoretical vantage point drug seeking behavior is reinforced positively by self administration of narcotics. It follows therefore that if the effects of self administered narcotics can be blocked drug seeking behavior should be extinguished. To date two drugs—cyclazocine and naloxone—have been found to have the capacity to block the effects of administered heroin. In addition to the blockade of subjective effects they prevent the development of physiologic dependence and afford protection from death by overdose. Their usefulness now has been assessed in many clinical centers. The present consensus on both of these agents is that they have limited value; clearly they do not have the general applicability of the methadone maintenance approach.

Clinical trials have been more extensive with cyclazocine than with naloxone and it will be considered first. At this writing approximately 450 patients have been studied with cyclazocine.¹⁰ Experience with these patients suggest that cyclazocine is useful for relatively short term administration. Patients do not appear to

continue to take it for years for only twenty of the 450 patients were still taking cyclazocine after three years. This finding is probably explained by the fact that many patients find the subjective effects of cyclazocine unpleasant.

A daily dose range of 4-8 mgms. of cyclazocine is needed to block the effects of heroin. This dose level cannot be instituted immediately however. The drug must be given first in low doses and the dosage then increased slowly over a period of weeks. If the dose is increased too rapidly patients have experiences of feeling unreal. Lightning flashes in the head are reported by some and insomnia, irritability and tension by others. Still others may report a "high like marihuana" or effects "like LSD". These side effects can be countered without difficulty by dose adjustments and/or the use of tranquilizers.

Cyclazocine does not reduce narcotic craving so that in the case where it may have therapeutic benefit the patient experiences narcotic hunger as usual but the reinforcement from "shooting" heroin is lost because of the blockade. In addition to the drawback that many patients experience cyclazocine negatively it is necessary to withdraw patients from all narcotics before building up cyclazocine dosage. Cyclazocine can precipitate severe withdrawal syndromes—some believe these can be lethal—if administered to a patient not free from narcotics.

Withdrawal from cyclazocine itself can be accomplished by muscle aches, rhinitis and subjective discomfort. The clinical utility of this drug is limited by all the foregoing factors but there are patients seeking help in achieving immediate abstinence who will continue to take the drug and who appear to derive benefit. Whether drug effects or motivation effects (inherent in the fact that patients must volunteer to take the drug) can account for treatment success remains to be settled by controlled experiments. The agonist effects of cyclazocine give it an abuse potential. Such a consideration may have relevance if for example one were choosing between this and some other drug without "agonist" effects.

Compared with cyclazocine, naloxone has the advantage of being free from unpleasant subjective effects but it has the disadvantages of being of short duration and of variable potency when taken orally. There is no physiologic dependence induced by naloxone. As in the case with Antabuse, in treating alcoholics, daily administration of naloxone is necessary. This means close supervision or strong and continuing motivation for success in treatment. Naloxone is quite expensive at present. It is in short supply and it appears

that in its present form it has limited usefulness primarily because of its short duration of action. Its relative lack of subjective effects gives it a low abuse potential.

Experts in the field feel that there are hundreds of potential narcotic antagonists of value. Currently, cyclorphan and n-allyl opiate derivatives are receiving the closest attention. Additionally, long acting antagonist depot vehicles are either being considered for investigation or in the instance of silastic (a material made from silicone and rubber) are under active investigation. The successful invention of such delivery system could be of major importance for treatment programs.

THERAPEUTIC COMMUNITIES

Whatever the past record is or whatever the future role of therapeutic communities turns out to be, one fact is clear: "graduates" of these institutions are the cadre par excellence of current drug abuse programs. The chief drawback of therapeutic communities is that they do not constitute a treatment applicable to large numbers of addicts. A look at what they require may serve to explain why. The expectation on entering a therapeutic community is prompt and complete renunciation of heroin. Traditionally this meant "cold turkey" but many current therapeutic communities have "relaxed" or "loosened up" in their treatment ideology to the point of allowing a detoxification with methadone over the first five or seven days of treatment.

A remarkable aspect of the detoxification occurring in the setting of a therapeutic community is the relatively benign nature of the withdrawal syndrome. In jails and in hospitals—indeed in any psycho-social setting which permits passivity and regression on the part of the patient the withdrawal syndrome can be severe. Passivity and regression, however, are not encouraged in the setting of the therapeutic community; the patient is called upon to perform routine housekeeping chores and to participate actively in social relating. Under such circumstances, the withdrawal syndrome is frequently mild and occasionally may hardly be experienced by patients. As noted above, psychological set and psycho-social reinforcement or the lack of it are always relevant variables in drug related behavior.

A prospective patient must be able to live in the therapeutic community and to do so for one to two years of twenty-four hour a day seven days a week, involvement with the "dynamic" of the house. All relationships—past, present and future—are subject to group inspection and evaluation. A patient is viewed as having to prove his ability to be independent, for central to the treatment philosophy of therapeutic communities is the view that the heroin addict is a dependent child who has

not the ability to be honest about property or feelings. Treatment is seen as a resocialization process in which direct honest communication is practiced with respect to all aspects of the addict's new life. If the addict can adjust to the experience—and it is clear that many cannot—he or she experiences tremendous support from his membership in the group.

Humor, tenderness and affirmation begin to be felt experiences in relation to other live human beings, the addict learns that negative feelings do not necessarily destroy the possibility of future warmth and he begins to learn that affective and social experience can be positive and not fresh confirmation for the depressive position and/or a stimulus for drug seeking. Those who become successfully involved in the "dynamic" evaluate their new status as being much more desirable than the monotonic affective experience they knew from the drug scene. "Graduates" of such experiences possess valuable skills. Their sensitivity to the feelings of others, their ability to communicate, their understanding of group process, their particular appreciation of the ordeal of change makes them ideally suited for helping addicts in any kind of treatment setting.

On the negative side, rigid allegiance to the abstinence ideology sometimes creates problems in adjusting to what is now a fact; namely, that many people can be helped significantly even though they continue to take a drug such as methadone. Many former patients emerging from therapeutic communities resisted the idea of methadone maintenance, feeling that it was bound to fail because people had not "cleaned up really".

Most experts in the field of drug abuse today feel that therapeutic communities are of unquestioned value for some patients but, as noted above, they do not constitute an approach which is applicable to large numbers of patients. Charles Diderich, the creator of the first therapeutic community, is reported to have said that his method was suitable for one out of ten addicts seeking help. From a clinical point of view, this still seems a fair statement. Patients in therapeutic communities tend to be younger on the average than those on Methadone Maintenance; as might be anticipated from the therapeutic contact described above they tend to be more mobile socially and geographically. The addict who is married with children and who has a steady job is usually not disposed to want or to accept treatment in therapeutic communities. The single, usually younger, addict is of course much more liable to do so.

Most therapeutic communities are organized around more or less identifiable steps in which increments of trust, status and power in the group are acquired. These steps can be thought of as roughly similar to the various

rites (e.g., confirmation or Bar Mitzvah) utilized by social groups in the "straight" world to mark various stages of maturation. Therapeutic communities have not institutionalized these basic steps but the underlying process is the same.

To date the style and general purpose of the group experiences in therapeutic communities have been transferred to the group therapy offered as an integral element of methadone maintenance programs. In brief, the value reinforced by the group is honesty in communication with direct confrontation being the vehicle to achieve the desired result. There has not been enough time to evaluate different group methods either in therapeutic communities or in methadone maintenance programs. The confrontation group works well enough but perhaps more conventional styles of group interaction may be more effective. From a psychiatric point of view, honesty in communication is certainly basic and desirable; however, exclusive preoccupation with the value of honesty ignores the genuine difficulty people have in labeling many of their feelings and their real need for defense against many psychological problems. The prospect is for the continued multiplication of therapeutic communities. It is likely that further experimentation will produce experiences appropriate for different problems. The adolescent poly-drug abuser, for example, will probably do better with a less demanding and less authoritarian social structure.

OTHER APPROACHES

The methods sketched briefly above are those with the most support among clinicians and researchers at the present time. Other methods, e.g., the "use of rational authority",⁶ "Civil commitment"⁷ or engaging in standard types of individual or group psychotherapy with a clinical psychologist, psychiatrist or psychoanalyst,¹¹ counseling with a clergyman or priest and the so-called English system have not received more than passing reference because these approaches have not found widespread acceptance. The failure to focus on these approaches implies only that they have not been employed effectively to the present time. Given the basic change in the cultural ambience which has occurred in the past two decades some of these methods may yet prove to be worthwhile. For example, if a general psychiatrist works in a community setting in which addicts are given the status of rehabilitable human beings and if he has the facilities for urine monitoring and if he is permitted to use methadone or cyclazocine he may be able to service substantial numbers of addicts. It appears likely that new approaches will be found and added to those already of proven value so that in the future

almost every heroin addict seeking help can find a suitable and effective treatment modality.

SUMMARY

Methadone Maintenance and Therapeutic Communities are the major treatment methods for heroin addicts today. Methadone has been found to be safe and it offers a two in three chance of helping a voluntary addict patient substantially to reduce his need for and abuse of narcotics while he resumes legitimate employment, decreases or ceases criminal activity and begins to relate to his family and friends in more mutually rewarding ways than was the case when he was taking drugs.

The long term outcome of methadone maintenance is not yet known; while there is no reason for anxiety, critics have seized on the uncertainty. Newer forms of methadone, such as the methadols, promise more flexible treatment regimens than has been possible in the past. The use of methadone in a relatively rapid transi-

tion from heroin abuse to an abstinence pattern has been little tried but may have promise.

Therapeutic communities are effective in the treatment of heroin addicts but there is question about the applicability of this method to large numbers of patients. The graduates of therapeutic communities are outstanding workers in rehabilitation programs.

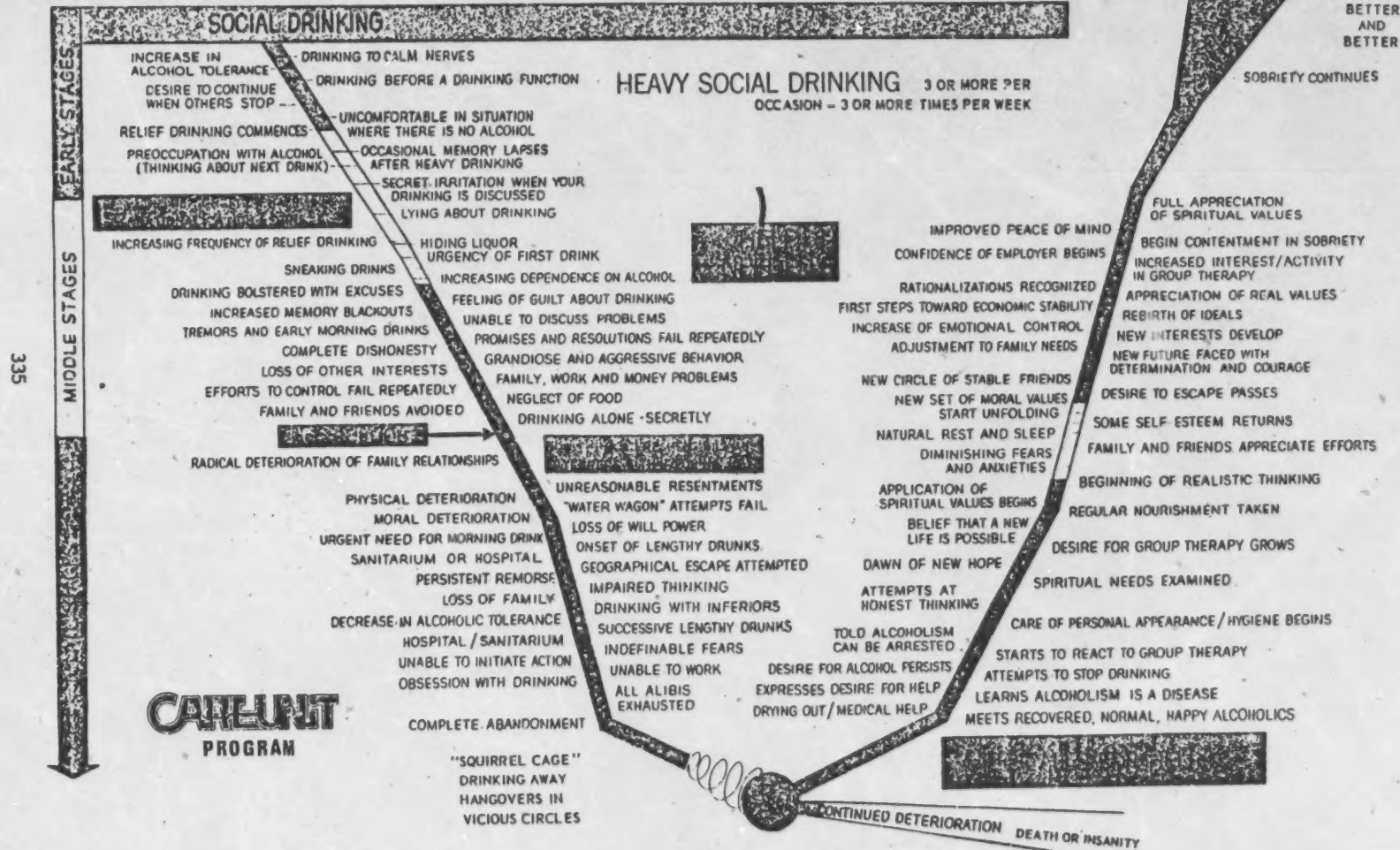
The narcotic antagonists—cyclazocine and naloxone—have limited value to date, appearing to be chiefly utilized by the addict seeking abstinence. The many problems with these agents—agonist effects in the instance of cyclazocine and variable potency when given orally in the instance of naloxone—remain to be solved. The potential therapeutic value of narcotic antagonists however is enormous. It is likely that the real achievements of the last two decades will be extended and supplemented in the decades to come for we have now a scientific and medical base from which to view these problems in place of the theological-punitive-legal stance of the past.

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DISEASE of ALCOHOLISM

PROGRESSION →



TREATMENT FOR ALCOHOLICS

by

Gayle R. Hamilton

INTRODUCTION

The change in the treatment of alcoholics began in 1935 with the establishment of Alcoholics Anonymous, although its impact was not felt for many years. Prior to that time, treatment was virtually unavailable. Doctors neither understood, nor wanted to deal with alcoholics. Alcoholics were seen as moral degenerates rather than persons needing treatment. Many ended up in insane asylums, died on the streets or committed suicide. Some spent years in psychoanalysis with little, if any, impact on their drinking.

Since professionals were accomplishing little, a small group of alcoholics who had managed to stop drinking joined together to attack the problem. Out of their collective experience emerged a 12 step program for recovery that is now used world-wide. AA brought a number of new perspectives to the attention of the professionals and the public. These went unnoticed for many years. Even now, they are not universally accepted. The AA approach remains controversial, but it has had a large impact on the viewpoints of the professionals. The perspectives developed by AA are as follows:

1. Alcoholism is a disease.

Alcoholism is to our knowledge the only disease to be first defined as such by nonphysicians. About 20 years after AA was formed, in 1954, AMA officially classified alcoholism as a disease.

2. The major problem of the alcoholic is alcohol, not psychiatric disturbance.

When professionals began treating alcoholics, they viewed abusive use of alcohol as a cover-up for some underlying pathology. It was assumed successful treatment would normalize consumption. This view is still held by some today, particularly psychiatrists and/or the staff of alcohol programs operated by mental health centers. However, this is a view held primarily by people who have had little or no training in alcoholism. Alcoholics Anonymous contends that the major problem of the alcoholic is his or her response to alcohol. Research has demonstrated that no personality characteristics can be identified which distinguish the alcoholic population from the nonalcoholic population.

Frequently, when an alcoholic is admitted for treatment, psychiatric interviews and psychological testing (using, for example, the MMPI) indicate an underlying disturbance. This is often due, however, to brain damage incurred during heavy drinking since, within 3-6 months after treatment these signs of disturbance disappear. Alcoholics tend to make extensive use of defenses such as denial, rationalization and intellectualization. However, after a period of recovery, these common defenses lessen, and the individual personality reemerges.

3. Abstinence from alcohol is critical.

Alcoholics Anonymous maintains that an alcoholic is "only one drink away from a drunk," and that normal social drinking can never be safely resumed. The reason for this is not understood. This perspective remains controversial in some circles, as a result of behavior modification studies which show some success in returning treated alcoholics to social drinking. However, these studies were conducted within controlled environments and have had only short term followups (6 to 12 months). Occasionally treated alcoholics have been known to maintain controlled social drinking for up to 18 months. However, the numbers are so small they appear to be more an exception than the rule. Dr. Shila Blume, a psychiatrist and Director of the Central Solip Alcohol Program offers this analogy:

If 100 persons were planning to swim across a body of water so shark infested that only one person could make it, would you take the risk?

4. All other drug use must stop.

Alcoholics Anonymous has also maintained that the continued use of other drugs such as tranquilizers and barbiturates will guarantee a resumption of drinking. The major arguments are:

- Cross-tolerance is developed for all depressants. If a high tolerance for alcohol is developed, a tolerance will also develop for other drugs. Consequently, large amounts of other drugs will be necessary to achieve results.
- An alcoholic will tend to use tranquilizers or barbiturates as substitutes for alcohol and consequently use them abusively. The effects are similar: You can get just as drunk on Librium^R and Valium^R or barbiturates as on alcohol.
- Despite physician reports, even the "mild" tranquilizers are addictive. Withdrawal from them can be as unpleasant as from alcohol.
- The use of other drugs will impair judgment so that the alcoholic will risk a return to alcohol consumption.

Until very recently, it was common practice to provide the recovering alcoholic with Librium or Valium as an adjunct to treatment, to "calm their nerves." Just 10 years ago, a prominent hospital in Boston maintained an outpatient clinic that was essentially a Librium dispensing facility. The patients filed in twice a week to receive their Librium and received perhaps 15 minutes of treatment while there.

Today most treatment programs recognize that growth in recovery proceeds better when the brain is functioning clearly - that is, drug free.

5. Recovery is possible.

Today, with better understanding, and more effective methods, prospects of recovery are viewed with optimism. This is the greatest contribution of AA. Before we can fully understand the best treatment methods we must first understand what happens to an alcoholic during recovery.

RECOVERY STEPS

Desire for Help

The first step in recovery from alcoholism is an honest desire for help. Unfortunately, this occurs on an average 9 years after recognition of the problem, when the misery becomes unbearable. The alcoholic usually goes through a period of testing his or her ability to return to those earlier days when the drinking provided good feelings. Eventually this fails and the alcoholic is faced with losing job, family, financial status, and so forth. Along with the desire for help, however, there must be someone there to give help-AA is a proven source of help. Statistics indicate that one out of 1,000 alcoholics is able to get off alcohol without help.

People enter treatment in various stages of acceptance of their disease:

1. They know they have a problem and are willing to take any measures to recover.
2. They are uncertain whether or not there is an alcohol problem and have a need to explore the issue.
3. They are coming for someone else-not for themselves. A spouse, Judge, boss, and so forth, has insisted that they get help.

While the latter group is frequently hostile, success with this group is high because an intervention has been made before their major recovery resources are lost.

Stops Drinking Alcohol

In order to make any progress in recovery, most people need to stop drinking immediately. This usually requires a detoxification program, since alcohol is one of the most dangerous drugs from which to withdraw. Evidence indicates that 10-15 percent of chronic drinkers who try to withdraw without medical supervision die.

There are two basic types of detoxification centers: medical and nonmedical (or, social setting detoxification). A medical detoxification program is usually conducted in a hospital for 2-5 days with heavy medical monitoring and drugs. A nonmedical detoxification program is conducted in a social setting with less drug support and a more informal, personal support system. Either detoxification program seeks to minimize withdrawal symptoms while reestablishing good eating habits so that the body begins to restore necessary nutritional balance and motivating the person to continue treatment so that sobriety can be maintained. Many difficulties encountered during the months subsequent to withdrawal are related to the malnutrition that results from drinking. A growing number of people subscribe to the theory that an initial nutritional imbalance may contribute to excessive drinking by stifling that desire for food and causing an excessive desire for empty calories, namely, alcohol and sweets. Regardless of the validity of this theory, it is an established fact the consumption of alcohol interferes with the body's ability to utilize the nutrients in food. Add a reduction in eating by heavy drinkers and severe malnutrition is an inevitable result. Malnutrition affects not only the physical health of our body organs, but also our moods, perceptions, rationality, memory, and ability to cope with stress. The alcoholic must deal with all results of malnutrition during the first 6-12 months of recovery.

The period immediately following detoxification is critical. An alcoholic will tend to feel greatly improved and perhaps think his/her problem is licked. It is essential to provide knowledge about the disease at this point so that caution will be uppermost and treatment will be continued.

Learns Alcoholism Is a Disease

This should be learned during the detoxification period. However, experience indicates that frequently negative attitudes and myths held by the alcoholic toward himself interfere with understanding that this is an illness. Acceptance of the disease concept requires taking responsibility for recovery. If a person is told s/he has diabetes, there are certain steps that must be taken to manage the disease—the diabetic must take responsibility for the future course of the disease. This is also true for the alcoholic.

Whisper of Hope

For a period of time now, the alcoholic has some hope and is often "on a pink cloud." S/he feels relief at having admitted a problem and sought help, has more energy, and sees hope for a future. After a month or so, though, there is a return to moodiness, sleepless nights and depression.

Mental Confusion

Two major phenomena trigger these happenings. First, a healthy, functioning body is not yet reestablished. Nutritional deficiencies still affect moods and sleeping patterns. Brain functions are still impaired causing memory problems, as well as ability to think abstractly and to reason. Some alcoholics report abstract thinking did not fully return for five years.

Second, the recovering alcoholic now has to face daily realities in a very different way of. Previously, interpersonal conflict, depression, anger, job problems and so forth, were handled by booze. In addition, alcoholics now are faced with resolving troubled marriages and friendships, overcoming shaky job situations and dealing with debts incurred while drinking.

Learning how to deal with these situations directly is very difficult and they need help. This is basically what recovery is all about so it deserves further attention. These difficulties are similar to those most of us encounter in our daily lives, but more intense. We all have to learn to handle conflicts between ourselves and others, to deal effectively with our anger, to share our feelings and communicate with others and to manage stress and depression in our lives. The years spent in heavy drinking are years lost to the normal, everyday learning processes that sober people experience. Laboratory studies comparing the learning ability of people who are sober and those influenced by alcohol show a clear diminished capability for learning under the influence of alcohol. Additionally, however, there is evidence that learning during one state does not transfer to the other. That is, if you learn to dance while intoxicated, you may have to relearn that activity when sober.

The alcoholic, or other drug abuser, has lived a significant period of his or her life with impaired social learning, so the early sober years require intensive maturation. This is accomplished best with the help and support of others.

Fear of Insanity

This is experienced by a number of recovering alcoholics, usually between the third and sixth month, and again is closely related to the factors discussed above, namely, physiological healing and inability to deal effectively with feelings and interpersonal relationships. This fear also frequently precipitates temporary steps backward. Paranoia is typically related to feelings about oneself. The alcoholic is not yet at a point in his or her life where self esteem is very strong. Negative feelings about one's self are accompanied by the conviction that others dislike you. For example, when the recovering alcoholic sees two people whispering, he or she may assume that they are the topic of conversation. With increased feelings of self worth, however, that conclusion is not so readily drawn, paranoia in general decreases, and the person is better able to get closer to others. Intimacy with others is terribly important during recovery. It reduces the loneliness and isolation that can characterize this period.

Guilt and Remorse

Feelings of guilt and remorse constitute another heavy burden for the recovering alcoholic. This can only be eased with time and with the knowledge that things about which the person feels guilty were done as a result of a disease. As a matter of fact, feelings of guilt are a positive sign, since they indicate that those drinking years only changed behavior and that the real person with the same set of values still exists.

Achieving Confidence

By approximately the sixth month of recovery, some substantial changes are taking place. Confidence increases, mood swings are less frequent, and brain functioning is returning. The recovering alcoholic must learn to feel worthy and relearn the basics of healthy interpersonal relationships including the need to communicate feelings and needs clearly, to get close to other people without fear, and to like oneself and to assert oneself effectively. The family of the alcoholic may need help in functioning effectively as a unit in supporting the alcoholic in recovery.

Treatment Settings

This recovery process can take place within any one or a combination of the following settings:

1. Alcoholics Anonymous. AA not only offers an excellent 12 step program of recovery, but also provides a social atmosphere within which camaraderie with others with similar problems can reduce loneliness and isolation.

2. Residential Programs. These typically last 28 days, although longer stays are frequently desirable. This program is often needed to give the recovery process a good start and is especially helpful when difficult family circumstances would interfere with recovery. It is usually provided in homes with a family-like setting that enables the alcoholic to relate to people with similar problems. Many employers are now allowing leave time for this kind of recovery program.
3. Halfway House. Programs provide extended residential services for those who are homeless or who need additional support. The client usually finds employment, works during the day and attends AA meetings or group therapy at night.
4. Outpatient Programs. Ordinarily people enter these after completing a residential program, although occasionally clients enter immediately after detoxification. An outpatient program is usually less intense and may last for up to two years. Clients attend one to five sessions per week in group, individual or family meetings. Each program is structured to meet the needs of the individual.

The main focus of these programs is on education, restructuring life style, self-knowledge, and interpersonal relationships.

DRUG ABUSE TREATMENT MODALITIES: AN OVERVIEW

by

Stephen Pittet, et al.

INTRODUCTION

This report briefly examines 23 different treatment modalities. Throughout the following discussion, two important realities should be kept in mind. First, there need not be a one-to-one relationship between actual treatment programs in your community and the treatment alternatives or services discussed herein. That is, some drug abuse treatment programs may provide *several* (or many) of the services distinguished by DATRS, while other programs may only *partially* fulfill the minimum service needs of one specific modality. Thus, in some cases it will be useful to recommend only a portion of the services offered by a particular agency or treatment program; at other times the interviewer should suggest a package of services drawn from several different programs.

Second, despite the distinctions made in the following pages between the various types of treatment services, the interviewer should understand that these services do, in fact, form somewhat of a continuum and that our descriptions should be looked upon as benchmarks or guidelines rather than as definitive requirements. As a consequence, the interviewer should, whenever possible, discuss the results of the referral interview with staff representatives from the treatment program(s) selected, pointing out the reasons for the specific referral, the client's individual strengths and weaknesses, and other factors pertinent to the treatment plan.

No Treatment Required

The selection of this alternative assumes that the client is able to deal effectively with his environment and that drug use does not jeopardize his well-being or ability to function. If it is determined that a client needs no treatment, this information should be communicated in a supportive manner so that the client will not feel neglected because his problem isn't serious enough. The interviewer should encourage the client to work on other areas of his life that may need improvement.

Drug Information and Education

Drug information and/or education programs provide information about drugs and their effects through literature, discussion groups, films, etc. Such programs assume that knowledge about drugs will deter drug use, impede the escalation of drug misuse, and enable clients to make well-informed rational choices. These services should provide accurate information that avoids sensationalism and moralizing. Some "street" information programs provide additional services, such as crisis intervention, drug chemical analysis, and timely information about "unsafe" drugs being distributed in the community.

Many drug education programs also offer clients an opportunity to examine and clarify their values and attitudes and to learn problem-solving and decision-making skills. The assumption, of course, is that these skills and techniques can be applied by the client to other areas of his life and will carry over to subsequent decisions that may confront him.

"Alternatives" Programs

Typically, services in this category are not designed to deal specifically with drug abuse problems. Instead, they provide various types of individual and/or group involvements that meet many of the same needs that often underlie adolescent drug abuse. While there are a great number of services in this general category, three important subcategories can be distinguished: (1) activities directed toward achieving altered states of consciousness; (2) activities that present real and/or simulated risk situations; and (3) activities that focus overtly on personal growth. Let us look at each type in more detail.

First, programs or services that are directed toward helping the client achieve altered states of consciousness generally attempt to create an "inner peace" or tranquility for the participant. Activities such as yoga, transcendental meditation, bio-feedback, and self-hypnosis all focus on lessening the turmoil in the client's life, thus enabling him to manage his life with increasing effectiveness.

Second, many programs offer rugged physical activities--mountaineering, wilderness survival, parachuting--that offer an element of danger and present real, physical challenges. Such activities recognize the genuine need for risk-taking that often contributes to drug abuse.

A third type of service in the alternatives category is the informal group whose goal is to enhance personal growth. Participants meet on a regular basis--generally, at least once a week--to discuss what is happening in their lives. The groups are growth-oriented, aiming at the improvement of insights about self, relationships, and society, rather than toward therapeutic behavior change.

Activities programs generally do not fall into a daily routine, are totally voluntary, require relatively little time commitment, and are only loosely organized. Such programs are appropriate for clients who might wish to grow intellectually and who are ideologically attuned to these types of activities. Clients coming from cultural or ethnic groups other than white middle class may have problems identifying with or accepting the usefulness of these services.

Community Activities

Programs in this category are also relatively unrelated to the specific problems of drug abuse. However, they can be thought of as preventive strategies that impede further drug involvement. These programs offer many diverse activities--varied sports, games such as chess, checkers, or cards, tutoring, community self-help projects, and political involvement. This diversity provides an opportunity for participants to develop a variety of skills and competencies. Programs of this type often depend upon volunteer support from those involved, and attempt to promote commitment and mutual concern. Participation is usually totally voluntary, and the time involved is generally determined by the participant's personal commitment. These factors combine to promote a sense of belonging for those clients capable of group involvement and close peer relationships.

Brief Counseling

This service is typically provided by "storefront" programs where counseling assistance is provided on request. For the most part, such counseling focuses on immediate crises rather than long-term behavioral problems. Since participants are often transient, counseling services generally deal with how the client is experiencing himself and his environment at the present time. Situational problems (educational, vocational decision-making, interpersonal conflicts, drug and alcohol abuse, etc.) are dealt with on a "here and now" basis. An informal and relaxed atmosphere is generally maintained, and

clients are encouraged to "drop in" whenever they wish.

Some characteristics of programs offering these services are: long hours, an extremely relaxed, non-questioning atmosphere, an environment conducive to "hanging out," and as little distinction as possible between staff and clients (dress, manner, etc.). The assumption, of course, is that a relaxed atmosphere and flexibility of services will encourage clients to use the program.

These programs may also provide additional services already described, such as drug information and education, "alternative" growth programs, and involvement in community activities. The participant's commitment to any aspect of the program is entirely voluntary, with the exception of those participating through a criminal justice diversion system.

Short-term Psychotherapy

The shift in treatment emphasis, beginning with this modality, is away from the solution of immediate, manifest problems to more long-range, generalized goals. This mode relies upon one-to-one interviews with a professionally trained individual, usually a psychiatrist, psychologist, counselor, or social worker. Short-term psychotherapy may be used until the client's inner growth forces are able to function adequately; it does not encourage lingering dependency. The goal is to improve the client's self-image and ability to function, usually within a period of less than a year. In most situations, the client is kept in this form of treatment only as long as he seems to be making satisfactory progress toward problem solutions. Clients are expected to observe regular appointment hours (typically one appointment per week), be "ready" for help by realizing personal problems and actively seeking guidance, and must be willing to work through these problems to solutions.

Many psychotherapeutic practitioners specialize in one or another particular "school" of counseling theory: Gestalt, psychodrama, transactional analysis, brief therapy, client centered therapy, primal therapy, etc. Selection of the most appropriate approach should be based upon the client's characteristics. Thus, a key question is whether the client is more comfortable in fairly passive, verbal interchanges (client-centered, transactional analysis, brief therapy), or in more active therapeutic relationships (psychodrama, Gestalt, primal therapy).

The psychotherapeutic process typically follows a basic pattern:

- Realizing that there is a problem and that there is a need for help.
- Establishing the client-counselor relationship, characterized by warmth, understanding, and supportiveness.
- Expressing feelings and clarifying the problem(s).
- Exploring the basis of feelings and personal resources.
- Reaching an awareness of desirable direction of change.
- Inducing change through reinforcement.
- Developing insightful awareness and externalizing this awareness to situations beyond the immediate problem(s).
- Evaluating and terminating the relationship.

Family Counseling or Therapy

The one-to-one psychotherapeutic process outlined above is often expanded to include the family; the therapist seeks to improve the functioning of the family as a group. There is an emphasis upon appreciating the differences between family members, an effort to improve communication, and a reconstruction of the flow of family interaction. The rationale for this type of counseling is the acknowledgement that the client's behavior doesn't occur in a vacuum and may be a response to either subtle or overt manipulation by other family members.

Methods of treatment differ among individual practitioners. The therapist may work with one family per session or with several family units at once. Family members may sometimes be seen for individual sessions. In working with adolescents, therapists sometimes separate groups of parents and groups of adolescents. Exchanges between such groups are often made, with the children of one family meeting in sessions with other parents. Another technique is to bring families together in a

crisis situation for an extended period of continuous confrontation. Under intensive study and treatment by the therapist over this period, the family is taught how to work through stressful situations. Appointments are regularly scheduled and commit the participant to work not only on himself, but also on interpersonal family dynamics. The energy expended by the client in family therapy is usually quite extensive.

Extended Psychotherapy (Individual)

Individual psychotherapy is an intense, one-to-one relationship that usually extends for a year or more. Emphasis is on significant personality change, brought about through a re-education of the individual at both the conscious and the unconscious levels. The therapist attempts to help the client gain perceptual reorganization and integrate the consequent insights into his personality structure. Therapy has a depth-emphasis and is analytic in nature, dealing with the client's past life, present behavior, and rigid neurotic patterns. This modality differs from shorter therapeutic strategies in both the duration and the intensity of therapy. Quite frequently, several interviews a week are scheduled. The therapist plays an active role in interpreting the client's behavior and in structuring and directing growth and change. Clients must be capable of active one-to-one involvement in the therapeutic relationship.

Extended Psychotherapy (Group)

This mode involves professional therapy in a group setting. Intense personal problems rather than personal growth or even inter-personal relationships form the substance of group psychotherapy. The material discussed during group sessions is offered voluntarily by the participants; the environment is generally supportive and non-confrontive. Group members are encouraged to express intense inner feelings.

This form of group treatment typically lasts from several months up to two years. Group sessions are held at least once each week. The program may or may not require individual therapy as an adjunct to group work.

Several types of clients are inappropriate candidates for this treatment modality: (1) clients who are extremely aggressive or hostile; (2) clients who are regularly in close contact with one another outside the group setting; (3) clients

who are fairly sophisticated in group processes and who tend to use their knowledge cruelly on others; and (4) clients having very little contact with reality.

Group Encounters (Light)

In this form of group treatment the client does not contribute voluntarily, but is drawn out by the group. The atmosphere, however, still remains supportive, and the emphasis is largely upon the client's positive attributes. Group participation tends to focus on inter-personal behavior and upon current behavior patterns that are observed by group members. For the most part, such material is dealt with on a contemporary and situational level rather than in a probing and analytical style.

Group sessions are usually held from one to three times per week, and generally last from one to two hours. The average length of time spent in this form of treatment is rather short--generally from three to six months. Light encounter sessions are often in conjunction with other treatment approaches (e.g., alternatives programs, community activities, etc.). In many programs clients are expected to participate in such additional activities.

Again, care should be taken not to refer clients to this modality if they can be expected to disrupt a supportive group process. Also, clients who have very rigid defenses seem not to benefit from this lighter form of encounter.

Group Encounters (Heavy)

Heavy group encounters are geared toward direct and sometimes violent verbal confrontation. Group sessions are characterized by a great deal of emotionality and a "no-holds-barred" approach. Everything verbal is permitted, forcing the client to face his own shortcomings and those of other group members. Participants generally learn to defend themselves well and are not permitted to show support for other group members under attack. Sessions may last several hours, and both duration and frequency of sessions are often determined by the group itself. This form of treatment is particularly useful for clients with rigid defense patterns.

Day-Care Activity Programs

These programs generally operate during regular business hours, five or six days a week, and offer a varied program of

relatively informal services, including vocational and educational training, "alternatives" programs, and some form of light therapy--individual and/or group. Clients are usually free to come and go as they wish, and typically allowed to involve themselves in whatever activities they choose. These programs are most effective with clients who have demonstrated past abilities to involve themselves in one-to-one and group relationships, and who have generally high scores on the Achieved Stake Index.

Ideological Groups (Non-Residential)

The primary emphasis of programs in this category is upon a religious or ideological conversion in which the participant gives himself to the cause. There is usually a great deal of strongly supportive group activity. The basic treatment goal is usually to bring the client to the realization that he is fundamentally good, that he can salvage his own life, and that he can help others do the same.

Daily routine is normally highly structured. For example, religious programs usually include individual and group prayer, study of scripture, hymn singing, "witnessing," and group discussion sessions. A great deal of emphasis is placed upon instilling internal and external discipline. Strict standards are generally set--e.g., smoking and alcohol are often barred, language is monitored, mode of dress may be dictated, and recreational activities such as card-playing are usually frowned upon. Many ideological programs segregate participants by sex. Clients are often expected to do outreach or street work to proselytize and bring in new "recruits." Average length of client involvement is typically from several months to a year.

Structured, Therapeutic Day-Care

This modality intervenes more drastically into the client's life than any of the previously discussed alternatives. Clients are expected to report to the facility on a daily basis and to participate in a highly structured schedule of regular activities. Such activities include individual and/or group psychotherapy, vocational and educational counseling and related services (sometimes including vocational training, G.E.D. courses, tutoring, etc.), regular maintenance of the facilities, recreational activities, arts and crafts projects, and field trips. Activities are closely supervised and regulated by staff

members. Participation in most activities is generally considered mandatory, one of the objectives being to overcome the client's own lack of internal discipline and structure.

Occasionally, this treatment alternative is offered on a day-night basis. In these programs a second group of clients spend their evenings and nights at the facility. Usually, the evenings include activities similar to those held during the day, but such activities are geared to a clientele who are either working or attending school during the daytime hours.

Structured, therapeutic day-care is recommended for clients whose drug involvement has been relatively short (less than one year) and who have poorly developed social strengths. Clients involved in heavy opiate use or serious multi-drug use, or clients who are living in an environment that encourages drug use are generally inappropriate for this treatment alternative.

Inpatient Detoxification/Counseling

During detoxification, the client is gradually withdrawn from drugs in a medical setting, often a hospital. In some cases, the dosage of the client's own drug is gradually lowered; however, most detoxification programs now use a cross-dependent drug--e.g., methadone--to withdraw the client. A variety of medications may be given for symptomatic relief during withdrawal. Programs vary in length from two or three days to several weeks.

This treatment alternative is appropriate for several groups of clients: (1) clients with very well-developed social strengths, regular involvement in a job or school, and a drug-free home environment; (2) clients being referred to some other, predetermined treatment alternative, but who require prior detoxification; and (3) clients for whom no treatment referral decision can be made until withdrawal is at least partially completed. Further evaluation of this third group of clients should take place in the detoxification program, thus providing additional opportunities for appropriate motivational counseling.

Ideological Groups (Residential)

Most of the activity in residential ideological programs focuses around the furtherance of some specific religious or political doctrine, and around teaching the client to aid the

program in that effort. From the outset, programs in this category attempt either to enlighten the client religiously or to raise his political consciousness.

Clients in this modality are expected to participate in and contribute to the functioning of the program. Daily activities are usually semi-structured, with religious teachings, worship, and rituals as a regular part of the religious programs, and political studies and action as part of the politically oriented programs. The availability of ancillary services varies considerably among programs.

In contrast with previously discussed treatment alternatives, clients in this modality must be able to make changes in their life-styles in order to adjust to the residential setting. At the same time the demand for self-exploration and personality change is typically less than in the non-ideological residential programs (see below).

Clients with the ability for strong group involvement, but who have otherwise poorly developed social strengths, may do well in this form of treatment provided that the program's ideology is acceptable to the client. Many programs in this category also provide in-house detoxification for high-dose opiate and sedative users.

Halfway or Re-entry Houses

Halfway or re-entry houses have traditionally served as temporary live-in facilities for those who have been released from prison or jail or from in-patient psychiatric care. For clients who have had drug-related problems prior to their confinement, these re-entry programs may be particularly appropriate, providing a temporary, drug-free environment during the transition to a noninstitutional life.

Although similar in some respects to the ideologically based residential program, the re-entry house has as its primary goal the introduction of the client back into society rather than his religious or political conversion. Although a staff member is always present in the facility, residents are generally allowed to live quite independently, and their time is not highly structured. Clients may be encouraged to participate in individual or group counseling sessions; however, this is generally not mandatory. Recreational activities are usually available, and in some instances the re-entry program

may work in conjunction with a day care facility to provide a wider range of activities. Vocational and educational counseling are often provided, as well as drug treatment referral services when required.

The halfway house is particularly recommended for clients with well-developed social strengths, and for clients whose preinstitutional environment encouraged drug use. It is also quite appropriate for clients who are involved in some constructive daily routine--e.g., a job or school.

Residential Therapeutic Community (Light)

The objective of this treatment modality is to remove the client from the social environment in which he has been using drugs and place him in a drug-free living situation with others who are also trying to give up drug use. Thus, a primary therapeutic tool is the supportive peer interaction of the residents themselves. The client of this treatment alternative is, in effect, placed into a new family, relatively isolated from the rest of society. Supportive individual therapy and mild confrontation group sessions are an essential part of the program. Daily activities are largely structured, and the client is expected to commit himself to daily participation in the program and to obey its rules. Educational and vocational counseling and training are usually available, and vocational placement assistance is often provided.

This is the most intensive and all-inclusive treatment modality discussed thus far. It is, however, much less rigid in structure and much gentler in its treatment of clients than the heavy therapeutic community (discussed next). Similarly, the length of treatment in this modality is usually less than that in heavier residential programs, averaging between three and nine months. The light therapeutic community is recommended for clients with severe drug abuse problems of comparatively long duration, for clients who would otherwise live in an environment that encourages drug use, and for clients who have recently been released from a prison or hospital. Within each of these groups, clients with well-developed social strengths are likely to respond more positively to this form of treatment.

Residential Therapeutic Community (Heavy)

The basic assumptions underlying this treatment alternative are quite different from those of the light therapeutic

communities. In this modality, the drug user is seen as a person whose emotions and behavior have not developed past his childhood; he is therefore treated as if he were a naughty child and dealt with in a punitive and authoritarian manner.

The services provided are basically the same as those offered by lighter therapeutic communities; however, the manner in which they are delivered and the type of psychotherapy utilized are so different that the overall treatment effect is also quite unlike that of the lighter residential programs. The initiation period is usually longer and more strenuous. The rules of the community are often rigidly structured; punishment for infractions are common methods for teaching the new client that he must conform to the policies of the program. The roles of authority within the community are rigid and hierarchical, with the most recent residents at the lowest levels of the hierarchy. Through time and good behavior, the client begins to achieve status and authority in the program. The kind of psychotherapy used in this modality is heavy confrontation and attack therapy. The aim is to break the client down, to destroy his "street image," so that he will be forced into personality change. Treatment lasts somewhat longer than in lighter programs, averaging from one to two years.

This modality is recommended for clients with a lengthy history of serious opiate, sedative, or multi-drug abuse. It is particularly indicated for clients with poorly developed social strengths who have been living in an environment that encourages drug use, or who are returning from a prison or hospital.

Methadone to Abstinence

This type of treatment provides the client with daily controlled doses of methadone. The assumption is that the client is capable of eventually abstaining from both heroin and methadone; the goal of treatment is to help him do so. The actual length of time on methadone may vary from program to program and from client to client; but in each case the length of time is specified at the outset of treatment.

Many of the services and activities available through day-care programs are usually available. Group and individual psychotherapy are encouraged. Also, educational and vocational services are of particular importance in this treatment alternative. These services are often provided on a follow-up basis to clients who have recently completed methadone tapering.

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In contrast to the residential programs, this treatment alternative is offered on an outpatient basis, but the client's commitment to the program must be quite strong, since he is physically dependent upon the distribution of methadone. This modality differs from the more traditional methadone programs (see below) in that the client is expected to detoxify from methadone within a pre-specified length of time, while traditional methadone treatment programs generally leave the time of detoxification unspecified. Methadone to abstinence differs from other detoxification approaches in that the client is maintained longer on methadone and is supported with a wider variety of services.

This modality is recommended for clients with a lengthy history of involvement with opiates, but with well-developed social strengths and regular involvement in a job, school or some other constructive activity. Methadone to abstinence is not recommended for those with poorly developed social strengths or for clients living in an environment that encourages drug use.

Methadone Treatment Programs

In this treatment modality the client is provided with daily controlled doses of methadone for an indefinite period of time. The goal is to allow the client as much time as he needs and wants to establish a life-style independent from heroin and from the crime often associated with its heavy use, before facing the problem of withdrawal from methadone.

In addition to regularly dispensing methadone, treatment programs in this category are required to make some form of psychotherapy available to clients. Many methadone programs now consider group and individual psychotherapy to be an integral part of their treatment plan. The usual spectrum of educational and vocational services should be readily available to all clients, including those who are in the process of detoxifying or who have recently completed tapering.

Although methadone treatment rarely offers the support and structure supplied by residential programs, this form of treatment does demand a serious commitment on the part of the client--he must report to the program at least several times a week to obtain his methadone doses--for an indefinite period of time. This modality is recommended for clients with a long history of opiate use who are presently involved in a regular daily routine of school or work and are living in an environment

that does not encourage drug use.

Methadone-Based Residential Therapeutic Community

A single program may incorporate the services of both a therapeutic community and a methadone treatment program. Alternatively, the client may live in a residential therapeutic community but go outside the facility to a methadone treatment program to receive his methadone dose. Clients taking methadone may live separately within the community facility, or all member may associate freely, regardless of their involvement with methadone. However the services are supplied, this modality offers the most comprehensive form of treatment for long-term opiate addiction.

This treatment alternative is most highly recommended for long-term, heavy users of heroin, and includes a drug-free environment and strong peer support, in addition to the physical support of methadone, as essential parts of the treatment plan. Heavy opiate users with major multi-drug abuse problems are also appropriate for this modality.

Custodial Care or Hospitalization

This modality is recommended only when the client has serious medical or psychiatric complications that preclude less intensive treatment. Clients needing this alternative fall into two basic groups: (1) those whose acute medical or psychiatric disabilities suggest their temporary inability to participate in or to benefit from any of the treatment alternatives discussed above; and (2) those whose chronic disabilities preclude participation in treatment. The selection of these services for clients in the first group is generally made with the assumption that they will subsequently be placed in a treatment modality appropriate to their drug abuse problems.

SOME REFLECTIONS ON THE EVOLUTION OF CURRENT AMERICAN APPROACHES
TO PROBLEMS OF DRUG ABUSE
AND TO THE TREATMENT OF DRUG ABUSERS*

by
Jerome H. Jaffe

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SOME REFLECTIONS ON THE EVOLUTION OF
CURRENT AMERICAN APPROACHES TO PROBLEMS OF
DRUG ABUSE AND TO THE TREATMENT OF DRUG ABUSERS

By

Jerome H. Jaffe

In this article the author, who was the first director of the Special Action Office for Drug Abuse Prevention, looks at changes during the last decade in American approaches to dealing with problems of drug abuse and the treatment of drug abusers.

As this paper is written, in mid-1976, there is, as usual, disagreement about the nature and extent of the drug problem in America and the effectiveness of our ways of responding to those problems.

To many in this field, it seems that the problems and the chaos are unending and unchanged. But, it may be that those who work directly with problems of drug use and addiction are too close to these problems to see the changes that have occurred over the relatively short period of a single decade.

If some "drug expert" from another country had visited the United States on just a few occasions, let us say 10 years ago, five years ago, and some time in the past year, and had kept a careful journal of his travels and observations, even a cursory reading of his notes would indicate that a rather remarkable transformation in American policies and practices had occurred.

A DECADE AGO

Let us try to imagine what observations such a hypothetical visitor might have recorded in 1966. Undoubtedly, he would have visited the famous hospital at Lexington, Kentucky. It is possible that he would also have visited the large scale civil commitment program in California which, in 1966, after its first five years of operations, seemed to be showing promising results. While in California, the visitor might have tried to see Synanon, that remarkable institution founded by Chuck Dederich, an ex-alcoholic, and operated entirely by former alcoholics and heroin users. It is likely that he would have arranged to visit New York, where Drs. Vincent Dole and Marie Nyswander were conducting research on methadone maintenance.

By 1966, Drs. Dole and Nyswander already had published their first enthusiastic reports on their first several dozen patients. These reports indicated that daily doses of oral methadone permitted former heroin addicts to stop using heroin, to stop committing crimes, and to work at legitimate jobs (Dole and Nyswander, 1965; Dole *et al.*, 1966).

During the visit to Lexington, it is possible that our visitor might have met Dr. William Martin, who would have told him about the use of narcotic antagonists, such as cyclazocine, for treating heroin addiction (Martin *et al.* 1966). He probably would not have visited Maryland, where Dr. Albert Kurland was studying the effects of daily urine testing on the recidivism rates of paroled heroin users (Kurland *et al.*, 1966).

If he were perceptive, our visitor would have noted several interesting paradoxes. First, each of these groups would point toward the very dismal statistics obtained from two recent follow-up studies of heroin addicts treated at Lexington (Duvall *et al.*, 1963) and at Riverside Hospital in New York, both of which indicated that 90-95 percent of treated addicts relapsed to heroin use within the first year after discharge.

Each group would claim that its results were far superior. Yet, only Dole and Nyswander, the California Civil Commitment program, and Kurland's project would offer any useful data for comparison. Two of these would be criticized by the others for depriving drug users of liberty; the third would be criticized by the others because the treatment involved continued use of opiate drugs.

Our visitor would have been struck by the intense, often bitter, rivalry and hostility among the various proponents of these approaches to the treatment of the drug addict. Such bitterness would have been puzzling, since there seemed to be no great shortage of addicts to treat, nor was there any immediately apparent purpose to the rivalry.

Certainly, competition for funds could not fully explain the antagonism. Indeed, aside from the State of California, which poured its resources entirely into its own civil commitment program, and the Federal government, which funded the Lexington and Ft. Worth hospitals, resources for treatment programs were available only in the State of New York, where limited funding was provided for the then fledgling Daytop Village, one or two hospital-based detoxification programs, and the pilot methadone maintenance program of Dole and Nyswander.

The visitor's trip to the United States would not have been too time consuming: all of the major functioning treatment programs in the country were mentioned in the preceding paragraphs.

If the hypothetical visit had occurred in late 1966, his journal

would have reflected that concern about drug use was mounting, at least on the east coast of the United States.

The United States Congress, after some discussion of the California program, had passed legislation creating a Federal civil commitment program.

In New York State, Governor Rockefeller had created a new agency to direct his attack on drug addiction, and had initiated a massive building program to provide hospital facilities for a civil commitment program modelled on that developed in California.

In New York City, Mayor John Lindsay had recruited Dr. Efren Ramirez of Puerto Rico to be his newly appointed coordinator of drug programs, and authorized him to create a network of Synanon-type therapeutic communities.

In Illinois, which at the time was believed to be second only to New York in the number of heroin addicts, a committee had been appointed by Governor Otto Kerner to review the problem of drug abuse as it affected that state. At the time, addicts in Chicago who wanted treatment were expected to plead guilty to a misdemeanor in order to avail themselves of the hospital facilities of the Cook County jail.

It is highly improbable that our visitor would have heard or read a paper given by an Assistant Professor of Pharmacology at the Washington meeting of the *Collegium Internationale Neuropsychopharmacologicum* in March of 1966. The paper reviewed the current status of treatment and ended with the following words:

"The challenge for the future will be the initiation of comprehensive programs comparing several treatment modalities in a manner that will eventually help us to identify which patients respond best to which approaches" (Jaffe, 1966).

In all likelihood, our visitor's journal would not mention concepts or terms like "contagion," "epidemic," "polydrug use," "Haight-Ashbury," or "hot-line." It would note, however, that the general public and the media had not yet fully grasped the important distinctions among the kinds of drugs being used.

The public's level of sophistication had evolved only to the point where a layman or a law enforcement officer who could separate drugs into "hard drugs" and "soft drugs" was considered well informed.

FIVE YEARS LATER

Five years later, in mid-1971, the observable changes in the situation were startling. The "drug problem," which a scant five years before had been of concern only in a few large states and a few urban centers, had now become a national issue engaging the attention of most of the population and of the President of the United States and the Congress, as well.

President Nixon had declared drug abuse to be "public enemy number one."

A new office, the Special Office for Drug Abuse Prevention (SAODAP), had been established within the Executive Office of the President, and was charged with coordinating the various programs touching on drug use problems that had proliferated throughout more than 14 separate departments and agencies within the Federal government.

Several large public opinion surveys would indicate that the general public viewed drugs and crime as the second most important problem facing the nation.

The visitor's notes would reflect that, during the summer and fall of 1971, a major concern of both the Federal government and the news media was the wide-spread use of heroin by American servicemen in Viet Nam. How to treat the large number of addicts that this exposure to heroin was expected to generate, and how to prevent the returning servicemen from "spreading addiction" in the manner of a communicable disorder, was a topic of serious debate and controversy.

On this second tour, our visitor would have had to make some difficult choices about which treatment and research programs he should try to see. There seemed to be at least a few treatment programs in every metropolitan area. Yet, despite this remarkable proliferation of treatment programs, drug addicts seeking treatment in the very large urban areas were unable to obtain it. It appeared that, for a variety of reasons, the programs had not expanded their capacity rapidly enough to keep up with demand.

In New York the methadone maintenance research programs, which had consisted of a single program treating a little over a hundred patients in 1966 had evolved by 1971 into more than half a dozen administratively distinct programs offering treatment to more than 10,000 patients. Yet, there were still thousands of applicants in New York who could not be admitted.

On this visit, the notes would reflect that new terms and new concepts, such as "drug abuse epidemic," "matching funds," "IND" (investigatory new drug) "FRAT" (free radical assay technique),

"TLC" (thin layer chromatography), "methadone maintenance," "polydrug use," "legalization," "decriminalization," and "multimodality" were coming into common use.

Our visitor would then try to understand what had happened in that five-year period to generate such major changes and such ferment. In particular, he would want to learn how the trend toward civil commitment of addicts, so evident in several large states and at the Federal level in 1966, was reversed and largely replaced by more comprehensive and varied community-based programs.

If he tried to gain such insight by talking to a variety of experts, he would conclude that there was little agreement. But, if he exerted diligent effort, and read enough Congressional testimony relating to the passage of various pieces of Federal legislation, a blurred but recognizable picture would emerge.

He would learn that, *between 1966 and 1971, non-medical drug use had become a much more widespread phenomenon than it had been prior to 1966. And the behavior no longer involved narcotic use solely by lower socio-economic groups and minorities, but involved a wide variety of substances used by a wide variety of people of all socio-economic strata. In addition, the drug use was often associated with changes in life style and a rejection of the traditional work ethic of American culture.**

He would also learn that even more alarming to the average American than the value change associated with drug use was the sharp rise in overdose deaths and in violent crime and robbery in every metropolitan area--phenomena that were associated in the minds of the public and most policy makers with rising use of heroin.

*In 1967, the peak year of the "flower children" in Haight-Ashbury, media fascination with drugs and "free love" brought an awareness of recreational drug use into every home; by 1969, the flower children had become "speed-freaks" and "junkies." By 1970, program directors, politicians, and the public were saying and hearing that drug addiction had reached "epidemic proportions."**

The first six community-based treatment programs to be given Federal support were just getting under way in 1969, and they were deluged with applicants for treatment who could not be admitted because of limitations on space and resources. In testimony before Congress, those interested in treatment and research pleaded for additional resources. But even as the demand for treatment increased, the limitations of certain treatment

*Editor's italics.

approaches were becoming more apparent. Preliminary evaluations of long-term therapeutic communities indicated that while those who remained might eventually adjust well, only 10-15 percent of those who entered such programs remained for 12 months or more. Civil commitment of addicts, as implemented by the Federal government and by the State of New York, was turning out to be phenomenally expensive and relatively ineffective.

*It was clear that American society needed to re-examine its programs, priorities, and biases, as the traditional reliance on control of drug availability, and on deterrence of drug use through the sanctions of criminal law, were no longer effective as they had seemed in the past.**

By 1970, government at all levels and in many countries, as well as private groups and foundations and the World Health Organization, were examining alternative strategies to minimize the adverse consequences of increased levels of non-medical drug use throughout society. High level committees were formed to examine the problem and make recommendations; congressional committees were busy taking testimony.

While all of this was happening, two Congressmen, Messrs. Murphy and Steele, brought back from Viet Nam the frightening news that 15-30 percent of the roughly 450,000 American servicemen in that area were addicted to heroin.

At that point, it became clear that arrest and imprisonment of returning veterans for possession of drugs, or civilly committing them, would be both unpopular and inappropriate. It seemed critical, given the already crowded programs and waiting lists, that greater access to some form of help for drug users be made available. The question was: What kind of help and with what long-term objective?

Sharply differing recommendations on what government ought to do were put forth. The differences were not easily reconciled.

Some experts made recommendations based on the premise that drug use and addiction were manifestations of fundamental flaws in society, and could be set right only by major social changes.

Another group based its recommendations on the premise that, over the short run, the nation was unlikely to be able to implement such large scale social changes, and that we ought to try to expand those approaches which seemed helpful at that time.

Jaffe, who later became the first director of the Special Action Office for Drug Abuse Prevention, put forth the proposition that one way to reduce crime would be to establish as a goal a situation in which treatment is so readily available that no addict

*Editor's italics.

could claim to have committed crimes in order to get drugs because he could not get treatment. It was thought that only under these conditions would the judicial system make the distinction between those individuals whose drug use is simply another aspect of a criminally oriented life style, and those who, but for their addiction and the high price of drugs, might have been law-abiding citizens. It was hoped that with treatment readily available, those who were willing and able to participate in productive society would be helped to do so, while those chronic criminals who continued to engage in crime would be viewed by the courts as chronic criminals and sentenced appropriately.

In mid-1971, the options for expansion of treatment were far fewer than anyone realized.

Of all the programs and approaches for which there was even a scattering of evidence of effectiveness, only detoxification, therapeutic communities, methadone maintenance, and civil commitment could be thought of as capable of expansion. And since there were thousands of people waiting for treatment, it seemed inappropriate to expand compulsory programs until the demand for programs based on voluntary participation was satisfied.

In practice, the major expansion of treatment initiated in 1971 involved all approaches, including methadone maintenance, despite very vocal opposition to the latter from within government, as well as criticism from groups outside government.

For the Viet Nam problem, a dramatically different and never before utilized approach was initiated. The approach made use of both recently documented findings from epidemiological studies and new techniques for detection of drugs in urine, to create a system of randomized testing to deter drug use and experimentation, and to bring addicts into treatment (Jaffe, in Congressional Testimony, 1971). In addition to expansion of treatment, commitments were made to expand training, education, and research, and to develop ways to assess the impact of policies and programs.

However, all of this new attention to problems of treatment, research, and prevention which came to be viewed as the "demand" side of the "supply-demand equation" did not mean a lessening of the basic American viewpoint that the best way to control drugs was to control their availability.

Even as resources for treatment and research were expanded, equally large increases were made in the effort to reduce supplies of illicit drugs. These efforts involved both increased resources for Federal agencies charged with detecting and prosecuting illicit traffickers, and the use of diplomatic pressure to persuade other countries to curtail the illicit traffic within their borders.

Our hypothetical visitor would have departed, in 1971, thinking that there was too much fighting going on on too many fronts in the American "war on drugs" to know who or what would win which battle.

A MID-1976 VIEW

On his return in mid-1976, our visitor would again be confronted by opinions, ideas, and data that would be difficult to put together into some clear or coherent picture. Yet, in terms of greater public sophistication about social issues and in terms of major advances in basic scientific knowledge about drug use and its consequences, the changes seemed truly remarkable.

In that brief five-year period, a more realistic appreciation of the distinction between *experimentation*, *use*, and *compulsive use* had emerged from increasingly sophisticated national surveys which showed high rates of use without addiction for a variety of drugs, including heroin* (O'Donnell *et al.*, 1975). Even basic beliefs about the natural history of opiate dependence had been altered by the findings of the SAODAP-sponsored study of returning Viet Nam veterans, conducted by Lee Robins and her colleagues (Robins, 1974).

Protracted abstinence phenomena lasting for months following withdrawal of opiates, a phenomenon observed by a number of clinicians, was documented under laboratory conditions by Martin and his colleagues (Martin *et al.*, 1973).

This same research group developed new narcotic antagonists, such as naltrexone, with potentially greater clinical applicability than the antagonists that had been previously available (Martin *et al.*, 1973).

Goldstein and his colleagues had developed a method for identifying stereo-specific opioid receptors in neural tissue. Utilizing this technique, a number of investigators (Terenius, Goldstein, Snyder, and Simon) had isolated and mapped the distribution of these receptors in the brain (Snyder, 1975). Shortly thereafter, Hughes and coworkers in Aberdeen had identified a polypeptide in the brain that had opioid-like action at the receptor (see Goldstein, 1976).

New information about the effects of alcohol on the body and about a possible genetic basis for vulnerability to alcoholism and of links to affective disorders were making further inroads on the moralistic views about that disorder (Goodwin, 1976).

*Editor's italics.

The basic and clinical pharmacology of marihuana had...evolved from the rather modest levels of understanding than that obtained just five years earlier.

Tobacco smoking as an "addiction" was receiving increased attention.

In addition, more accurate information on the overall impact of illicit drug use on society was becoming available, for the first time, from a system of adverse consequences indicators, sponsored by the Federal government and known as DAWN (Drug Abuse Warning Network).

With respect to treatment of opiate addiction, the ferment of the early 1970s would no longer be as visible or as audible. Items about addicted veterans, drug traffic, "addict" crime, methadone deaths, babies born in opiate withdrawal, which seemed worthy of feature magazine articles and front page coverage only a few years earlier, were now relegated to the back pages.

Our visitor would be mildly amused to find that no one thought it worthy of comment that the rhetoric of 1971 about making treatment available actually had been translated into a large network of community-based programs, offering services to more than 200,000 people each year (See Federal Strategy, 1975). Such achievements were simply accepted. The criticisms in the media and the articles for the laity turned to issues concerning the costs of treatment, or its effectiveness, or the costs and effectiveness of law enforcement.

Our visitor's notes might reveal that, at first, he considered the possibility that the drug use epidemic (in terms of new users) had not only run its course, but also that many of the drug-using behaviours that Americans had believed were permanent life styles were, in fact, much shorter lived; and that the total number of users had shrunk to an insignificant size. He would learn, however, that although there were now treatment programs that were not filled to capacity, even in places where waiting lists had been so glaringly evident only five years before, few experts held the view that the number of heroin addicts and users had decreased substantially. Indeed, earlier in the year, some of the media had carried statements by officials of the Federal government that the "epidemic had never really ended" (*Washington Drug Review*, 1976).

But the data made available by the agencies told a somewhat different tale. A variety of indicators of opiate use pointed toward a shift to a more active status by some former heroin users.

For example, in 1975, two-thirds of those admitted to treatment programs for primary heroin addiction were readmissions; whereas,

in 1973, the majority were first admissions.

Death rates from narcotic overdoses were up somewhat in the first half of 1975, as compared to 1974; although hepatitis rates, of the kind that were associated with intravenous drug use, were holding steady, still down substantially from their peaks of 1971 and 1972 (N.I.D.A., 1976). Because of changes in the methods of gathering such data, it is not possible to say whether the death rates in 1974 and 1975 are higher or lower than those in 1973, when the DAWN system replaced less formal surveys used prior to that time; but, the previous surveys had indicated a drop in death rates in 1972 and 1973, as compared to the peak year of 1971.

If our visitor took the time to examine some material available on the epidemiology of heroin use, he would have found that by 1974 the epidemic was still not over, although it could be stated that such a statement would be true only in a limited, technical sense (i.e., incidence rates--new addicts--were actually rising in some smaller communities).

It would also be true that such an interpretation might give a false picture for the country as a whole. In the major metropolitan areas, where more than one-third of the United States population resides, the incidence rate was declining (i.e., the epidemic was ending or was over), and the total population of users and "addicts" was growing more slowly, if it was growing at all.

For purposes of describing a national trend, this stabilization in these major metropolitan areas overshadowed any continued growth in smaller communities.

Although methadone maintenance and ambulatory detoxification programs were now available in virtually every metropolitan area, some of the same individuals who had enthusiastically advocated expansion of methadone maintenance programs in the early 1970s were now expressing disillusionment. The bases for the disillusionment varied.

On the one hand, some of these former supporters-turned-critics were taking the position that the policy of providing methadone maintenance to those addicts who wanted it was no longer viable, and that a switch to large-scale detoxification programs was in order (Bourne, 1976). This view was based on several premises:

- An acceptance of official statements that the heroin problem was growing worse, and a corollary assumption that the demand for services would grow to unpredictable new heights.
- That the country would not wish to bear the costs of the further expansion of methadone maintenance treatment programs.

- The belief that, as currently operated, most programs using methadone (as well as those using residential approaches) gradually accumulated a permanent cohort of chronic patients and eventually lost their capacity to respond to new applicants.
- That the costs of programs were irreducible in any way other than a switch to a short term detoxification approach.

At the same time that treatment programs--especially methadone maintenance programs--were being criticized for retaining patients permanently in costly programs, they also were being criticized from another perspective.

It was argued that, on the whole, the programs that were providing maintenance services to former heroin addicts in 1976 had deviated from models established by Dole and Nyswander in the period 1965-1968. Dole and Nyswander, for example, pointed toward the 40-50 percent "drop-out" rate of current maintenance programs and contrasted this with "a 98 percent retention rate" in the early programs. They viewed the drop-out rate and the increased turnover in the current programs with particular dismay, on the basis of their own small follow-up study showing that detoxification or drop-out is associated in most instances with relapse to heroin use, alcoholism, rearrest, or death.

They further put forth the view that the failure of methadone maintenance to attract and retain more addicts is due exclusively to rigid, arbitrary, bureaucratic regulations and controls which were, in turn, a response to efforts to expand programs, and to the flood of money from Washington over the period of 1970-1973 (Dole and Nyswander, 1976).

Thus, our visitor would find, in addition to the traditional American distaste for the use of opioid drugs in treating drug dependence, new concerns expressed by ostensibly knowledgeable former supporters of this approach.

One concern is that maintenance is no longer practical because of a projected escalating demand for treatment and the tendency of maintenance programs to retain and accumulate clients to the point of saturation; another is that bureaucratic regulations have produced a sharp reduction in the appeal of programs and a sharp increase in drop-out rates and client turnover.

By this time, however, he has learned that on the American drug scene few statements can be taken at face value, and few things are as they appear. Our visitor searches for supporting data and finds that many of the premises underlying these criticisms are not fully supported by available evidence.

Despite the official pronouncements that we have not "turned any corners" and that things are getting worse, evidence that demand for treatment is rising sharply is difficult to obtain.

This may be, as Dole and Nyswander (1976) assert, because addicts no longer view programs as being potentially as helpful as they once seemed; but it may also be that many users are no longer as seriously dependent as they once were. If the programs are less attractive, (and our hypothetical visitor would probably find that there is a general consensus that this is the case), there would still be some question as to why this is so. All would agree that bureaucratic rigidity and red tape undoubtedly play a role.

But, even a cursory inquiry would reveal that long before there was even a small effort by regulatory agencies to eliminate some of the obvious abuses that had developed, many clinicians who had been involved in the evolution of both methadone and non-methadone approaches to the rehabilitation of addicts were warning about the burn-out syndrome--the tendency of every program to become bureaucratized, and to lose the intimacy and the momentum generated by the dedication of the original developers and the enthusiasm of the early patient populations. Such warnings included the need to base future projections of impact on the results from late cohorts of clients and programs, rather than on results from the highly self-selected patients and dedicated pioneers in treatment.

*Equally cursory inquiry would reveal that the development of regulations and standards was not necessitated by the rapid expansion of early 1970s (even though money from Washington did accelerate such expansion); but that, by 1970, illicit methadone traffic, sharply escalating numbers of methadone overdose deaths, and individual physicians and programs prescribing methadone to non-addicts were already threatening the status of the maintenance approach.**

Even when the resources from Washington were flowing in unprecedented amounts, advocates of such programs were still lobbying for increased resources to expand them. The decision to use tax money to support and expand some of these services using methadone simply made the need for some standard of care and concern for diversion even more urgent.

Our visitor would probably find that the most perplexing criticisms were those concerning retention in programs, or the lack thereof.

From one perspective, the process of finding ways to increase turnover is criticized as having moved too slowly (Bourne, 1976). Those who hold this view generally believe that prolonged and indefinite maintenance is unnecessary (or, is necessary for only a small percentage of clients), and that those individuals who wish to attempt to detoxify should be encouraged and supported in their effort to do so. This view of methadone as a "temporary support," rather than as a treatment for a more or less permanent

*Editor's italics.

metabolic lesion, was put forth as early as 1969 on the basis of experience with addicts in Illinois (Jaffe et al., 1969), and has gradually gained additional support (Goldstein, 1972).

Our visitor would recognize that, *from this viewpoint, retention rates of 80 percent over a period of years in maintenance programs are far from inherently laudable, but suggest, instead, an overall philosophy about addiction as a more or less permanent disability.**

He would also need to weigh the views of other experts in the treatment of opiate dependence, who feel that most of those who detoxify, whether they do so slowly under medical supervision, or simply drop out of treatment, will relapse to opiates, become alcoholic, or die. Such experts cite some evidence to support their view, and hold that the declining retention rates of many current programs are tragic evidence of the pernicious effect of politically inspired regulations (Dole and Nyswander, 1976). It is not clear whether there is a corollary view that, with no regulation whatsoever, staff enthusiasm and retention rates would be restored to their previous levels.

Our visitor would have found that an independent evaluation of the first 1500 patients who entered the early methadone programs established by Dole and Nyswander indicated that the retention rate at one year was closer to 80 percent than to 98 percent (see Gearing, 1971).

Our visitor would also note that viewpoints critical of current programs and policies tend to overlook the fact that, *given estimates of 300-400,000 active "addicts," the current treatment programs receiving Federal support are now admitting each year far in excess of 100,000 clients with heroin as a primary problem or 25 percent of the active addict population in any given year.** Federal agencies estimate that programs not reporting through CODAP (Client Oriented Data Acquisition Process) may be treating an equal number of heroin users. More than a few experts take the view that, at any given time, this is about the proportion of addicts whose problem is such as to motivate them to seek help.

In terms of overall public attitudes and social policy, our visitor would make an effort to look at recent legislation, public statements by elected officials, and official reports and budgets, to see to what extent the ferment of 1971 to 1975, with its special congressional committees, commissions, strategy councils, special White House offices, and task forces, had made any substantial changes, and to what extent any recommendations for change had been implemented. He would find that the record

*Editor's italics.

was mixed.

The recommendations of the First Report of the National Commission on Marihuana and Drug Abuse (1972) that the use of marihuana be "decriminalized" had not been *accepted* at the Federal level [although in August, 1977, President Carter did propose that Congress *consider* marihuana decriminalization]; although some states had reduced the penalties for possession to a civil fine.

Many of the recommendations of the Second Report of the Commission (1973) on the more general topic of drug use were being implemented. (Indeed, many of these had been implemented even before the report was written.)

The Commission's major recommendation for a single Federal super-agency, incorporating both law enforcement and rehabilitation and research, had not produced any administrative changes at the Federal level. However, by 1976, single state agencies coordinating treatment and prevention were functional in every state, according to the provisions of the 1972 bill which had created SAODAP.

The recommendations that national policy should differentiate recreational drug use from compulsive drug use (addiction), and that the goal of such policy ought to be the minimization of adverse consequences of drug use, rather than the complete elimination of non-medical drug use, had already been accepted by all but the most die-hard law enforcement representatives.

Yet, it was difficult to get the average American politician to state explicitly that we would settle for anything less than "total victory" in the "war on drugs." Nevertheless, a greater degree of tolerance for those who use drugs recreationally was generally evident throughout American Society.

The effort of the Commission, in its Second Report, to give due recognition to alcoholism as America's most important drug problem was only partially successful; neither the media nor those running for public office found in such a statement the same possibilities for generating interest or the sense of urgency that were inherent in problems of heroin addiction or in the use of other more exotic substances.

Our visitor would note that, *although the Commission pointed to the serious health consequences related to dependence on tobacco, which in terms of public health was far more devastating than alcohol and opiates and other forms of drug use combined, it did not make any serious recommendations or underscore the need for giving this problem greater priority. Instead, the Commission had recommended continued high priority attention to alcohol and heroin, and, to a large extent, this emphasis had been maintained.**

*Editor's italics.

Perhaps the most important recommendation of the Commission was to de-emphasize the drug problem and to reintegrate it into the larger framework of human problems; this recommendation was fully congruent with the commitment of the Executive Branch under both Presidents Nixon and Ford to limit the SAODAP to a three year life span.

Many of the Commission's 1973 recommendations for treatment and research, such as the use of block grants and the establishment of treatment standards, had already been incorporated into the SAODAP legislation, which was passed in 1972.

Our visitor would note that *a recurrent theme of many committees and commissions over the period of 1971 to 1975 was the need for government and the public to give greater attention to prevention. Unfortunately, few of these recommendations were accompanied by suggestions as to what would constitute an effective program of prevention...there was still considerable support for drug abuse education in the name of prevention, even though most studies had indicated that, as generally implemented, drug abuse education had little or no impact as a way of preventing adverse consequences.**

Yet, the progress toward disentangling drugs, crime, and politics from each other was not uninterrupted.

In 1972, after determining that massive expenditures for treatment and rehabilitation had not deterred the continued rise in crime within his state, the Governor of New York concluded that "treatment had failed," and that what was needed were extremely tough new laws, as well as an expanded court system that would see to it that pushers were taken off the streets quickly and for prolonged periods of time. Mandatory penalties of life imprisonment for sale of opiate drugs were forced through the New York state legislature.

The Federal government, not to be outdone, introduced its own set of proposed minimum mandatory penalties for sale of controlled drugs. The federal proposals, however, were not enacted.

On the whole, few states followed New York's lead in making mandatory sentences for drug sales a key element of their political campaigns and, by 1976, items were appearing in newspapers and scholarly journals stating that New York's tough laws had not had any major impact on crime, and that their impact on drug traffic *per se* was uncertain.

Our visitor would see how difficult it is to weaken the popularly-held notion that most criminals would stop being criminal if

*Editor's italics.

only there were no opiate drugs available. He would probably wonder why, if the real concern of government was reduction of street crime, so few politicians recommended expanded courts and minimum mandatory sentences to deal with the specific crimes of concern (e.g., robbery, assault, etc.), rather than with drug use that is only theoretically linked to a limited proportion of such crimes.

If our visitor had been looking for some sign that a sense of perspective about drug use in modern society had, at any time, permeated to the highest levels of government, he would have taken special note of the final paragraph of the first and only report of the Special Action Office for Drug Abuse Prevention:

It is in the nature of a free society to permit a variety of behaviors--even those which are imprudent and which are potentially harmful. A responsible society also attempts to minimize the harmful effects of such behavior. Efforts to respond to the non-medical use of drugs is part of that attempt. However, it is unlikely that the problems associated with such non-medical drug use will ever be wholly eliminated, nor is it likely that we will ever reach unanimity on the most effective strategy for reducing the overall costs to the lowest levels. There are clear limits to what governments can do about drug abuse and still preserve the essential values of a free society (SAODAP, 1973).

He would note that this paragraph had been reiterated and expanded in a White Paper on Drug Abuse (White Paper, 1975) prepared for the President in 1975 by the Domestic Council, which, ironically, had been chaired by then Vice-President Nelson Rockefeller, the former governor of the State of New York.

Despite some uncertainties, our visitor would probably come to feel that, for the moment, Americans have been able to place the problems of drug use and addiction into better perspective.

He would probably be pleased that such problems were no longer considered by most Americans to be more important than foreign affairs, inflation, unemployment, or general issues of health.

He would feel that it was appropriate and consistent that there was no longer a special office in the White House to give the problem special attention.

The amount of money the Federal government was investing in drug problems was no longer at the peak levels reached in the hey-day of SAODAP. Although most program directors and researchers were grumbling that the resources had not even kept up with inflation, reductions from peak levels were relatively small,

especially when one takes account of the amount of indirect funding of drug treatment programs through mechanisms such as Medicaid.

REFLECTIONS

Looking back over a decade...our visiting expert would conclude that after more than 50 years of responding to illicit drug use primarily by attempting to control drug availability and to deter drug use (by arresting and imprisoning users for possession of illicit drugs), Americans had begun to accept the need for a more balanced approach.

And despite the criticisms that had been rampant over the decade and the disillusionment of those who felt that good treatment should accomplish more than it has (or ever promised to accomplish), he would realize that, as of mid-1976, the fundamental outlines of that balanced approach, as outlined in congressional testimony in 1971 and in the Federal Strategies of 1973, 1974, and 1975, had been further developed and solidified.

As he packs his bags, now, our visitor will be puzzled by stories in the press that high government officials are showing a renewed interest in systems for legalized distribution of heroin for intravenous use. He will note with some concern the reappearance of press releases from private groups, governmental agencies, and congressional committees with a vested interest in the ongoing problems, decrying the failure of government to provide more resources to fight the problem, to expand and "enrich" treatment programs, to crack down hard enough on pushers with mandatory penalties, to get our concerns across to other countries that raise opium, and warning of worsening conditions looming on the horizons.

He will wonder whether the politics that seem to be so characteristic of the American response to drug use are really unique to drug use; he might note, as an hypothesis, that perhaps this is the way the American political system responds to most complex problems, ranging from energy to unemployment. He might make a further note to drop in, on his next visit, to the congressional hearing on the budget of the Federal Energy Agency.

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CASE # 1

Joe is 35 years old and a particularly well liked coworker. He is always entertaining to be with, helpful to friends in need, and a real "charmer." He is also a hard worker and pulls his share of the load - that is, on Tuesday, Wednesday and Thursday. In fact, he does his work so well that he almost makes up for those Mondays that he is bleary eyed or those Fridays that he seems to run out of steam early - that is, he's not really attending to his work. It is often necessary to check his work on Monday to prevent mistakes that might be visible to his superior. Recently he has begun to be somewhat irritable, and this is not characteristic. Joe has always been known as a boozier. He could really hold his liquor and was usually the life of the party.

CASE # 2

Sarah is a 25 year old employee who has been extremely friendly, cooperative, and conscientious in the two years she has been working for your company. For the last three months, however, her behavior has become increasingly erratic: coming in later, taking longer lunches, appearing alternately fatigued and hyper, and missing deadlines with her work. As long as you have known her she has been a moderate to heavy social drinker, frequently suggesting catching "happy hour" after work. According to the rumor mill now, however, she has become reinvolved with her old boyfriend who is reported to be a small time dealer, particularly of cocaine. In addition, there is some indication that she may have sold a small quantity of drugs to another person in the office.

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ROLE SHEET #1

One of you is a coworker of Joe's and has been for five years; another is his supervisor; another is an employee who does not know Joe personally and is therefore not emotionally involved; and the last is his spouse, brother or sister.

Now that you have your parts selected, discuss Joe's situation. The following are some guidelines:

- 1) Does it appear that Joe has a drinking problem?
- 2) Is it bad enough that it should be addressed? Explain.
- 3) Coworker: Do you feel that you should be talking about Joe's problem with his supervisor? If not, tell him why you should not. Have you ever tried to talk with Joe yourself?
- 4) Supervisor: Have you been aware of Joe's problem? Do you think that you have to deal with it or leave it alone? Are you comfortable discussing this with his coworker? Why?
- 5) Uninvolved party: Restate what you hear happening in the dialogue between the coworker, spouse, and supervisor. For example, are one or both protecting Joe? Do they seem to trust the goodwill of the supervisor?
- 6) Brother/Sister: Do you find it difficult to be objective about Joe's situation? Have you talked to Joe about it and what was the result?
- 7) All four:
 - a. Describe a strategy for helping Joe including whether or not he must seek treatment. What will you do if he refuses; how will you approach him?
 - b. Who will initiate the strategy?
 - c. What kinds of support will Joe need from any of you if he should go into treatment?
 - d. How might your strategy or attitudes be different if Joe were not a likeable, hardworking fellow?

ROLE SHEET #2

Select the roles similar to the ones used in Case #1 and in addition to the discussion questions proposed there, consider the following:

- 1) What has changed in the situation or your response to it now that illicit drugs may be involved?
- 2) How do you feel about Sarah as opposed to Joe?
 - a. Do you have more or less compassion for Sarah?
 - b. Are you more or less likely to get involved?
 - c. Is the focus of your concern Sarah's well-being or is it something else?
- 3) What is your strategy for helping Sarah?
 - a. Do you think she needs treatment, and if so, what type?
 - b. Do you see any correlation between the drinking and illicit drug taking behavior?

MODULE VII

PREVENTION APPROACHES AND STRATEGIES

PERSPECTIVE

This module explores the goals, perspectives, and history of drug abuse prevention. It emphasizes the role of school, family and community in responding to the skills and needs of youth. It explores criteria for effective prevention strategies and alternative approaches to drug abuse prevention.

The structured experience allows the participant the opportunity to apply the material presented by developing a preliminary prevention strategy.

(Note: The module emphasizes prevention and youth. Trainers are instructed to adapt material in discussions of other groups, e.g., the older citizen.)

OBJECTIVES

- Identify appropriate goals of prevention.
- Develop and list the four major perspectives of drug abuse, outlining each perspective's goals, emphasis, and drawbacks for prevention.
- Classify and identify scare tactics, drug specific, non drug specific, cognitive, and affective approaches to drug prevention.
- Identify at least five factors that should be considered for effective prevention education.
- Identify the role family, school and community play in developing and incorporating the skills of valuing, decision making, communication, responsibility and success, in their respective systems.
- Define by listing, the assumptions and goals of alternative activities.
- Classify alternative activities and the skills, needs, and aspirations that alternative activities might satisfy.

CONTENTS

- Overview (10 minutes)
- Lecture/Discussion: Perception of Drug Abuse (30 minutes)
- Lecture/Discussion: The Prevention Strategy (30 minutes)
- Lecture/Discussion: The Role of Family, School and Community (30 minutes)
- Small Group Exercise: Skill Development for Prevention (30 minutes)
- Lecture/Discussion: Alternative Activities (30 minutes)
- Small Group Exercise: Culminating Experience (50 minutes)

TOTAL TIME: 3 hours 30 minutes

*Drugs Demystified**

Chapter 5

by

Helen Nowlis

*Paris: The Unesco Press, 1975.

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Strategies for prevention

Historically there have been four major strategies of prevention corresponding roughly to the four assumptions made about the drug-individual-context variables but also depending on further assumptions about behaviour.

First, prevention based on the moral-legal model rests heavily on punishment and threat of punishment for possession and use. It assumes that punishment and threats of punishment will deter undesired behaviour. This leads to the passage of punitive laws and, at least theoretically, to the enforcement of those laws. Behavioural research, as well as practical experience, suggests that punishment and threat of punishment deter only to the degree that, and as long as, punishment regularly and speedily follows a sufficiently high percentage of the occurrences of the behaviour to be deterred. The more prevalent the behaviour becomes, the greater surveillance must be in order to keep the chance of punishment sufficiently high to serve as a deterrent. The kind and degree of surveillance required to make punishment serve as an effective deterrent when the proscribed behaviour is private and frequent is often not acceptable to a given society because of other values it cherishes and other priorities it has. In some instances it will tolerate such surveillance for certain groups but reject it for others. It uses information about the dangers of proscribed drugs both to justify and to reinforce its legislative and enforcement efforts.

Second, prevention based on the medical or public health model relies heavily on the containment of known users to prevent them from 'infecting' others, on the identification and treatment of individuals at risk and on drug abuse education as a sort of inoculation. Drug abuse education based on this model assumes that all or most individuals value and seek good health and fear and wish to avoid disease. Typical of this approach are the familiar campaigns against alcohol and cigarette use, which have been successful very rarely and only marginally. All such programmes which rely on information about the potential deleterious effects of individual drugs or classes of drugs depend on the assumption that information influences behaviour, or that information influences attitudes which in turn influence behaviour. Later in this chapter, this seemingly logical assumption will be examined in some detail.

Third, prevention efforts based on the psycho-social model of drug use and abuse to one degree or another place major emphasis on use or non-use as human behaviour, as complex, as variable, as socially and culturally determined. Information about drugs and how they interact with the human organism is not neglected, and there is often a degree of wishful thinking that colours the selection and presentation of the information. Major differences between the use of information within this framework and within the other two are the assumptions that information indiscriminately given and passively received has little chance of changing behaviour although it may reinforce existing behaviour, that information, however carefully targeted, will not influence behaviour unless it is actively processed and related to the attitudes, values and style of life of an individual or group, that decisions to use or not to use are often impulsive rather than rational and are influenced more by social factors than by information. Information is thus one factor in discussions of values, of risk-taking

behaviour, of decision-making, of problem-solving. But information as prevention is only incidental to attention to the personal and social needs that drug use may serve and the basic problems of which destructive drug use may be one manifestation.

Fourth, prevention strategies stemming from the socio-cultural model look to the social context of behaviour for major change. Rather than emphasize the adaptation of the individual to the context or social environment, it suggests that factors in the context should be adapted to the individual and his needs. Institutions, especially education, should be modified to be less impersonal, more humane; health and social services should be more client-centred and less professionally dominated; peer groups should be allowed to develop to meet the growth needs and styles of life of a variety of individuals; the social acceptability promotion of legal drugs should be diminished; the world of work should be more rewarding to the individual and less exclusively oriented toward profit-making; laws that do more harm than the behaviour they are designed to control should be changed.

From a practical point of view, any strategy that does not take into account all four points of view will probably be ineffective. Exclusive emphases on drugs, on individuals or on social and cultural context will almost certainly be less than effective. Deviant or destructive drug use cannot be dealt with out of the context of other deviant or destructive behaviour; individuals behave as total entities, as individuals who think and believe and feel and act as an integrated whole; human beings are social beings and spend most of their lives in institutions that shape them and are shaped by them.

Prevention based on information

'Education' in the form of supplying information about socially disapproved drugs and drug users has long been used to generate support for social and legal action to control such drugs and their users, as well as to allay the anxieties and fears of those threatened by even the prospect of such use. Such information has typically served these functions well if the number and nature of state, national and international laws and covenants designed to control such use and users are an indicator.

With the rapid rise in the use of illegal drugs in some countries and its spread to all segments of society, a first response on the part of some was a proliferation of the information that had been used in this support of social and legal action and was assumed to prevent 'drug abuse'. Pamphlets proclaiming the disasters certain to follow use of an increasing list of 'dangerous drugs' were distributed by the hundreds of thousands both by governments and private groups; television spots and documentaries filled the ether, documentaries and dramatic films were produced and widely shown. Assorted individuals were assembled in groups of varying size from classroom or assembly to nation-wide television audiences and presented with films, cartoons, pamphlets, lectures by 'authorities' varying from physicians to ex-addicts, without regard for the nature, pattern and extent of their drug use if any. For those who did not use illegal drugs and probably never

would—because they perceived drug use as incongruent with their values, their goals and their styles of life, as a threat to a stable perception of themselves and the physical and social environment which they value, as a decrease in their mastery of themselves and their environment which is important to their security and well-being and as representing social and legal risks which far outweighed any possible personal or social benefit—for these such information reinforced their already strong resolve. But for others for whom adventure and daring were valued or sought as status symbols, whose goals and values were not traditional, who felt that they had little to lose and possibly much to gain, such information may have promoted at least experimentation.

Within the past several years, education defined as selected information indiscriminately purveyed and accompanied by explicit or implicit exhortation has fallen into disrepute. It has been judged ineffective if not counterproductive in many instances. With its fall from favour, all information and all education have been questioned as effective strategies for prevention. Neither information nor education consistent in process or content with the best principles of behavioural science has been given a fair test. Moreover, education is not to be equated with information. Information, properly used, is a valuable tool of proper education.

Information, with or without exhortation, has been and will probably continue to be a major prevention strategy for those who subscribe to the legal-moral or the medical-public-health points of view, not only for drug abuse but for all health-related problems. It is easier to implement and less disruptive to individuals, professions and institutions than the strategies growing out of either a psycho-social or a socio-cultural model. That it has been less than successful in most health-related problems will probably not diminish its use in drug use and abuse. Information, even with exhortation, as a strategy can function more effectively if it does so within the general framework of effective communication and persuasion.

Making communication more effective

If use of socially disapproved drugs is the objective and information about drugs and drug use is the strategy, it is possible to make information much more effective than it has been to date, but only at a certain price. Social science research has documented well the methods and techniques of effective communication and attitude change. Advertising and practical politics have long used them successfully. They are based on very sophisticated analyses of the meaning and function of the attitudes or behaviour to be modified or facilitated; they are carefully tailored to the value structure and style of life of well-defined and differentiated target groups; they make use of specified variations in the source of the information or communication, in the form and content of the message to be communicated and in the target of the communication, the individuals or groups to be persuaded.

The essence of any communication designed to influence knowledge, attitude or behaviour in a desired direc-

tion is who communicates what to whom. But basic to all three is a clear understanding of the goal or objective. Communication in this sense is a tool to be skillfully used for a clearly defined objective. In the case of most communication designed to influence drug use, the objective traditionally has been to prevent or to stop illegal drug use. A professed objective is sometimes to provide information as the basis for informed decisions. For the first to masquerade as the second is often disastrous. A third objective may be to prevent the harm resulting from using drugs unwisely. Those pursuing this objective have usually come to the conclusion that in a given situation the first objective, abstinence, is hopeless even if desirable and that efforts to pursue it contribute to destructive use. Still a fourth objective may be to prevent escalation from any type of use to regular or to destructive use. In each case the objective dictates who says what to whom.

Whatever the objective, there are basic principles which determine the effectiveness of the information or communications.

Credibility

The perceived source of the information must be seen as both credible or expert and trustworthy by those to whom the information is given. Who is expert will be viewed differently by different groups. Expertise may be judged in terms of professional qualifications. If drugs as pharmacological agents are believed to be the key factor in drug use, pharmacologists and physicians are usually considered expert. If drug use is perceived as behaviour, behavioural scientists or practitioners may be judged most knowledgeable. If, for reasons related or unrelated to drug use, all authority or establishment sources are suspect, users or ex-users may be considered the only experts. Expertise and credibility are judged by the recipient of the communication, not necessarily by any objective consensus. Such judgements vary from group to group, culture to culture.

Information about the dangers of illegal drugs used primarily in support of, or in opposition to, certain legal, social and moral positions typically ignores at least three well-established facts about drugs. The first of these is the dose-response curve, the fact that the same substance produces different effects in different amounts. Effects attributed to socially disapproved drugs were primarily those of high-dose levels. The second basic fact is the overriding influence of non-drug factors such as the physiological and psychological characteristics of individuals, their expectations, and the circumstances under which the drug is used. Such influences are almost universally acknowledged for alcohol, primarily because it is so widely used. The more widely any drug is used, the more this fact is recognized. The third basic pharmacological fact, not unrelated to the second, is that any discussion of the effects of any drug, whether in relation to the effective dose, toxic dose, lethal dose, idiosyncratic reaction or side effects, must be in terms of probabilities. The drug-individual interaction is so complex and so variable that no effect can be predicted with certainty. Credibility decreases in direct proportion to certainty and dogmatism.

The primary effect of such information has been to decrease credibility and consequently to impugn the

motives of those disseminating such information. Untruths, half-truths, exaggeration, overgeneralization and sensationalism kill credibility. What is said must bear some relationship to what is experienced by the great majority of users. Once credibility is breached it crumbles like a dam and generalized doubt and distrust remain.

For most drug users and for many other young people, failure to place alcohol use in the same context as other drug use, despite its legal status, and failure to place drug use by youth in the context of all drug use, are a certain formula for decreasing if not destroying credibility.

Questions. Who will be expert and credible to a given target group? Is it possible to be expert and credible with users and with those most at risk and still be acceptable to the larger society? Can a given individual or category of individuals have credibility with all target groups?

The message

Characteristics of the message are equally important in determining the effectiveness of a communication. A major question is the degree to which contrary positions or counter-arguments to the desired effect should be included, excluded, presented first, presented last. In general it is considered desirable to include all the arguments and to explicitly draw and justify the conclusion one wishes the target group to espouse. If the target group is initially in support of the conclusion and is not likely to be exposed to the opposite position, opposition arguments may be ignored. But, if the target group, although initially in agreement with the advocated position, is likely to be exposed to another point of view at a future time, mentioning and refuting this opposing policy will lead to greater resistance to future attacks on the position being supported. If the audience is supportive, opposing arguments should be mentioned and refuted before presenting the position to be supported; if the audience is naïve the case should be made before mentioning and refuting the opposition case. If the group is a captive audience, extreme positions should be avoided since such positions will cause the neutral or hostile in the group to tune out. Positive appeals are more effective than negative ones. Subtle, qualified messages embedded in a broader context and related to or anchored in other values, goals, styles of life or related to the values and styles of other individuals important to the individual may not produce a strong and immediate impact but will increase the probability of a long-term, lasting effect.

Questions. Is it feasible to tailor-make information to the degree suggested? If it is not, what role can information play?

The target group

Characteristics of the target of the information or communication are equally important and equally complex. As seen above, they interact both with the source and the message. Users, non-users and fence-sitters react differently. Individuals with high and low self-esteem react differently. Individuals with different attitudes toward authority react differently.

Individuals who are at risk need different treatment from that appropriate for individuals who will in all probability never be exposed.

Questions. Is it really necessary to tailor-make information for every different group? What are the dangers in not doing this? What does this mean for the use of mass communications or for state-wide curricula? How does one train a communicator to be sensitive and responsive to such diversity, to be able to 'play it by ear'?

The results of the best planned and executed informational or educational campaign are strictly limited by social and environmental realities.

Question. What role, then, should information play?

Using information about drugs effectively and constructively

There is a highly drug-specific informational or educational campaign that can be undertaken without concern for the knowledge, attitudes, values, styles of life, patterns of drug use, attitudes toward authority, level of anxiety or self-esteem of the target group. While highly drug-specific, it is not generally considered to be more than peripherally relevant to 'the drug problem'. By some it might be considered to contribute to socially unacceptable drug use.

A major problem facing all technological societies has been obscured by the great concern and preoccupation with socially disapproved drug use. It is the fact that everyone is living in an environment increasingly dominated by chemicals and is ill-equipped to live wisely in such an environment. It is critically important that young and old alike understand how chemicals, whether they are called drugs or not, interact with the living organism. Every individual should understand the fundamental principles of drug (chemical) action as described in Chapter 2 as the basis for wise personal, social and legislative action. The products of modern chemical technology are both a blessing and a curse. They can be used more safely and wisely to enhance well-being and relieve pain and distress; the harm associated with any uninformed use can be reduced; more intelligent planning and decisions regarding the chemical by-products of technology can be made.

In the opinion of some, such education may be the most constructive first step in reducing the myriad of problems associated with socially unacceptable drug use.

Information and the curriculum

In an effort to take into account at least some of the problems discussed above and, in addition, to avoid the danger of highlighting or glamorizing socially disapproved drugs and drug use, information about drugs and drug use is increasingly being incorporated into regular health curricula. In some instances it is incorporated as appropriate in such courses as chemistry, biology, history, literature or social studies. Such incorporation must be done with care and must be in the spirit of the whole course and not just as an excuse to add one more exhortation.

Inclusion in a broader curriculum has, at least theoretically, the advantage of adapting the material to the developmental level of the child. Concepts can be introduced and elaborated over a series of grades.

Teachers introducing drug-related information into any course should receive special training. Raising a topic concerning which there is so much discussion in the community and the media will raise questions and discussions which must be handled from a background of knowledge and understanding.

It is also critical that the teacher be aware of the social, psychological and developmental characteristics of a given class. By choice, a teacher should be equipped to introduce drug-related material as the need arises rather than to schedule it according to adult logic. One of the barriers to effective communication is the felt need on the part of some communities, schools and teachers to seize every opportunity to deliver one more dose of 'vaccine'. When communication is open and teachers are credible and trusted, young people are quick to indicate their need to know and the nature and level of that need.

Beyond information and exhortation

In responding to the need to relate information, attitudes and values regarding socially unacceptable drug use to the developmental needs of the individual, and to place them in the broader context of risk taking, of decision-making, of clarifying values, many groups such as families, schools, youth counselling centres have developed a variety of techniques designed to develop within a child skills that will enable him to make increasingly informed decisions consistent with his developing system of values. The continual interaction between decisions and values is an important learning process, one which never ends as long as the individual continues to grow. To encourage it is an act of faith in the child's basic need to grow.

These strategies are firmly based in the psycho-social model. Information is not ignored for it is essential to any informed decision-making. It is assumed that for information to influence behaviour it must be incorporated into the active process of learning.

If the basic premises of the psycho-social model are accepted, the shape and form of programmes and activities for families, schools, peer groups, and all the institutions in a given community are limited only by the imagination and commitment of the institutions in the community. In many instances they involve only doing differently what is already being done. In other instances they provide an opportunity for mobilizing talents and human resources not being maximally utilized. In still others, they may involve major or minor changes in institutions, as in the example of the New York City schools. Change is always threatening in prospect; change that produces progress toward a valued goal is rewarding.

Putting the psycho-social model to the test

The various models described in this booklet are not theoretical and it seems useful here to cite an example of their actual implementation.

The United States has probably put more faith in drug education and pursued it more vigorously than any other

country. The people looked to the schools to accomplish what legislation, enforcement and treatment had not. In addition, as drug use spread to middle and upper class young people whose parents were uncomfortable in perceiving their offspring as engaged in behaviour often attributed to the criminal or mentally ill, 'education' seemed a more humane and socially acceptable way to proceed. Across the nation, educators were persuaded that the drug problem was reaching crisis level and that they must respond at once. Their first response was their natural response, to provide students with information about drugs and the dangers of drug use. They rushed teachers to universities to learn about the chemistry of drugs or borrowed pharmacologists or pharmacists in order to administer large doses of information about drugs as either treatment of, or vaccination against, a 'disease' they did not understand. At least they were doing something that came naturally, i.e. providing information on the assumption that it would influence behaviour.

It did not take very long for a school to become aware that many students were bored and unbelieving, insisting 'that's not where it's at', and that drug use kept increasing either as a coincidence or possibly as a result. Gradually, in some instances in spite of themselves, school after school turned its attention to values, to decision-making skills, to problem-solving skills, to alternatives, even, in some cases, to examining what the school was doing or not doing to develop the kind of sound and mature person for whom drug use served no valued function. That is, they turned to non-drug-specific education. They put the psycho-social model to a test.

And then their troubles began. A community still thinking in terms of the legal or medical models was not persuaded that they were doing anything to stop drug use. They were hard pressed to respond. Learning and growth take time. Everyone wanted instant measurable results. Instruments for validly and reliably measuring changes in behaviour that is illegal are not readily available. Even if they were, many parents were reluctant to have too many questions asked lest they be faced with a problem they only suspected.

One of the most dramatic testimonials for non-drug-specific intervention is that of a programme in several New York City public high schools located in high-risk areas. It is mentioned here only because it is one of the very few programmes that has been at least minimally evaluated in terms of its actual impact on drug-related problems.

The stated goals of the programme are: (a) to establish a setting within each school where young people can go to learn to like themselves and to cope with one another; (b) to help students to make decisions, to solve problems, and in the process to grow; (c) to provide young people with intellectual, social, cultural, and recreational alternatives to drug abuse; (d) to improve communications with existing services within each school.

The strategies for achieving these goals included group and individual counselling, training of a peer leadership group, tutoring, home visits, parent workshops, parent-child group sessions, community involvement, curriculum development, and in-service training of teachers.

An evaluation study compared a random sample of 100 students from the programme in each of two of the nine participating schools with a sample of 100 non-participating students from the same school, matched with the experimental group in respect to previous referrals for drug-related activities, instances of misbehaviour, absences from school, grades in six courses, and sex. The number of referrals for drug-related activity and the number of drug-related ambulance calls decreased significantly for the participating group after one year while increasing for the non-participating group during the same period. The number of absences decreased significantly for the participating group while the number of absences for the non-participating group increased. The number of instances of fighting with other students, fighting with faculty, abusive language, disrupting classrooms, damaging school property and stealing went down dramatically for the participating group while going up for the non-participating group. Average grades for the participating group were higher during the period they were in the programme than before, while grades for the non-participating students dropped during the same period.

The evaluators cautiously concluded that, on the basis of evidence from two schools, there was an association between participation in the programme and improvement in socially desirable behaviours, and that there was some influence to which non-participant students are exposed that had the opposite effect. The other seven schools are now being studied.

Schools in New York City have a unique challenge and a special relationship to their diverse communities. Such a programme within a school or a school system may be highly inappropriate in another school system in another culture or subculture. The particular programme is described as an example of one based solidly on the psycho-social model and suggests that somewhere in every community there should be a place where young people can learn to like themselves and to relate constructively to one another; learn to make decisions, to solve problems and in the process to grow; to have an opportunity to develop their particular skills and talents through intellectual, social, cultural and recreational growth promoting activities—if the community cares.

Alternatives to drug use

To recognize that the reasons for drug use are normal in no way commends drug use but it does provide a different perspective on drug use and a possible response, one that is gaining increased attention and popularity. This response is referred to as alternatives to drug use, and it is relevant to prevention, to early intervention, and to treatment and rehabilitation.

The assumption behind this approach is that people take drugs because they want to, that drug use serves some function, gives them some satisfaction in some area of their lives, and that they will stop using drugs or use less, if they find something better that will serve somewhat the same function, and that often does serve similar functions for non-drug users. The key to the effectiveness of alternatives as a deterrent to drug use is that they provide a more

satisfying, or at least more acceptable, way of achieving and responding to the particular experiences sought with drugs. The experiences sought from drugs are myriad and often highly personal as well as social. By definition alternatives must be equally numerous and varied. They must span the physical, sensory, emotional, interpersonal, intellectual, developmental, creative, aesthetic, experiential, philosophical, socio-political. They may be exotic or extremely practical. Dramatic decreases in use of marijuana and hashish occurred spontaneously in a group of students studying meditation. Young men from socio-economically deprived backgrounds and situations in which drug use was high virtually stopped all drug use when enrolled in a job-training programme that they perceived as leading fairly directly to the realization of their personal and clearly defined aspirations.

As societies become larger and more diverse, institutions such as schools are being hard pressed to respond to the needs of all those encompassed in this diversity. Other institutions in the community, either existing or new, may have to take on some of the responsibility. In some countries, a wider variety of schools have been established, either within the regular school system, as an adjunct to the system or independently in the community. The wealthy and privileged in most societies have long demanded the privilege of creating schools that would respond to the particular needs of their children as they perceived them, as long as they were willing to pay the price. Alternate schools designed to meet the needs of youth not met by the regular schools are occurring with increasing frequency in some countries, at both the higher and lower socio-economic levels. The resourcefulness of communities or societies who value their children not as private property or merely as future economic producers and consumers but as those in whose hands the future of their society will rest, who are committed to fostering their optimal growth and development, in equipping them to solve problems as yet unidentified, may be worth watching.

Viable alternatives, in addition to being related to specific needs or functions, must contribute to individual identity and independence, provide for active participation, involvement and a chance for commitment, and provide relief from day to day routines.

*Drugs Demystified**

Chapter 6

by

Helen Nowlis

*Paris: The Unesco Press, 1975.

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Arenas for growth

Cultures, societies and nations differ in their child-rearing practices and in the typical or traditional ways in which various social agents and peers interact with the child and youth as he or she grows into and through adolescence and on into adulthood. Nevertheless, they have in common the following: to produce adults who can carry out the roles and functions for which adults are responsible in the culture, arenas must be provided in which growth and development are fostered from infancy on. In most societies the institutions most important in such growth are the family, the school, the peer group and the community.

Family

Almost universally, families and kinship groups have served as the major arena for growth and its facilitation from childhood to at least early adolescence. Families provide models for, and training in, the emotional, social, vocational, intellectual and moral skills required for adult functioning. As societies have become progressively larger, more complex and heterogeneous and less personal, other social agents and institutions have had to take over increasingly the child- and youth-related functions previously served by the family. Which functions and to what degree vary from society to society and from class to class. Not only are more of these functions being performed outside the family but they are being assumed there at earlier ages and for longer periods.

This means that for a variety of reasons, often having more to do with expediency and adult convenience than with the welfare of the child, an increasing number of children spend most of their waking hours, and consequently most of their learning and growing, outside of the family even at very early ages. The response of society, in this assumption of functions traditionally assigned to the family, may be unconscious, casual, routine or, in fact, responsible. In too many instances, it is inadequate, primarily because too little attention is paid to the basic psychological and emotional development so essential for maturity and for emotional, social and intellectual health.

Whatever the combination of arenas in which the child grows up, the years from infancy to adolescence are critical in all aspects of development. It is in these years that the child learns basic orientations and attitudes toward self and others: respect for, or doubt of, self, love or hate, trust or distrust and fear, growing or dying. Living is learning, particularly in these years. Families can promote growth or retard growth by what they communicate to the child about his worth, his potential and his ability. They also provide role models which in turn provide goals and expectations and ways to achieve them. They provide both opportunities and expectancies for growth, the freedom and protection necessary for growth, the physical, sensory, social, emotional and intellectual nutrients for growth.

If traditional families cannot serve these functions because of social, economic or emotional stress, some alternatives that do serve them must be developed.

The school

In the face of all too human reluctance to grapple with difficult and complex problems that resonate with deeply held beliefs and attitudes, not only about drugs and drug use, but about the nature of man and of the good life, many are searching for a more comfortable and acceptable means of doing what threats of punishment and dire consequences have not seemed to accomplish. New hope is being placed in education both in the home and in the school, in the role of parents and teachers as individuals and of families and schools as institutions. From the psycho-social point of view this is filled with promise, provided it does not simply change the actors in the same old play.

The easiest thing for schools to do is what comes naturally, what teachers have been trained to do in order to carry out the role and function assigned to the school by their culture and their community. These vary from society to society and from group to group.

In societies that have assigned the main role in socialization to the family, schools are usually assigned the role of providing information, knowledge and skills needed for use in the world of work, family and community. These tend to be substantive and subject-matter or discipline oriented. The school is also expected to reinforce, by requiring them, the 'proper' ways of relating to authority and to peers; being respectful, courteous, orderly, thoughtful of others. On occasion it may be asked to deal with a problem that the family feels that it cannot deal with, for example drug use.

In societies that, for any of a variety of reasons, have assigned to the school an important role in socialization, concern goes beyond knowledge and information and involves social and personal values, areas that in the first instance are jealously guarded by the family.

In still other societies, either because they are heterogeneous or their institutions are in transition, the role of the school is not clear and may vary from community to community, from social class to social class, depending to some extent on the ability of the family to serve successfully as the socializing agent. These are the schools that are most likely to be asked to deal with problems where all else has failed, such as drug use, and that may find it most difficult to respond in a way that is satisfactory to all.

Experience would suggest that for a school to venture beyond its assigned or accepted role into areas for which its teachers are not adequately trained will be only at some risk. It might be well advised to work with parents and community to help identify the most appropriate agency to respond to the identified need. If the decision is that the school is the most appropriate institution, it should proceed to equip itself and its teachers to deal with the problem, not assume that what it does regularly is necessarily an appropriate response. Above all, it must not claim to do what it cannot deliver.

If, in a given society, the role of the school is defined as supplying knowledge and teaching skills that are needed in the adult world, it is most unlikely that it will formally accept an active, conscious role in the personal growth and development of youth. But it actually functions in this role, often despite itself.

Schools are both formal and informal structures. On the one hand, they have assigned functions carried out by assigned individuals who perform in assigned ways. On the other hand, they are people interacting continually with other people, communicating both verbally and non-verbally, usually in the context of their assigned functions whether these are related to teaching or to learning. Teachers interact with other teachers, with administrators and with students. Students interact with other students, with teachers and occasionally with administrators. Each interaction communicates to the individual something about his status, his worth, his competence, his identity and his developmental progress.

Peer groups

Peer groups are an important factor in the growing up process. They are often treated casually but they are in reality an institution in a sociological sense. They have form and function even though both may vary from age level to age level and from place to place. They may be created by a community or a society to serve specific functions, as in the case of scouts, youth clubs, summer camps, temporary work groups, athletic clubs, or they may be created by youth themselves in terms of their own need and be less formal and structured. In either case they are an arena in which learning and growth occur and are especially relevant to the early task of learning to relate to a variety of people outside of the family. They also provide a usually safe and supportive atmosphere in which to take tentative steps toward independence and intimacy; they provide a group identity while individual identity is still developing; they provide status at a time when individual status is hard to come by for many.

It is important to remember that any group, in order to be a group and to maintain its functions, must have symbols, activities, values, behaviours that distinguish members from non-members. Manner and dress, insignia, language, music, secrets, rituals or shared experiences all serve to maintain the solidarity of the group and to proclaim its uniqueness. It is a great error to equate these group-maintaining activities with the functions the group serves. It should also be remembered that when attacked or threatened a group may become more tightly knit and feel the need to exaggerate or flaunt the signs and symbols of its solidarity.

Drug use may function as a sign or symbol, as an initiation rite or even as a status-giving activity. Within a group where status is gained by being tough and daring, by taking the greatest risks, drug use may provide status to the very degree that the larger society defines drugs and drug use as dangerous.

Drug use has still other features which attract the young person to the peer group. With peers, he shares; from

peers, he learns what effects to expect and recognize, what responses to make to bad effects; through peers, he obtains substances from a wide-spread network of dealers, sharers, users; with the drug he expects better understanding of, and interaction with, peers and better understanding of who he himself is inwardly and how he stands outwardly with them.

Occasionally and in many parts of the world, the international commercialized youth 'culture' brings increased interest in, and access to, new patterns of drug use as well as of music, dance, sociosexual interaction and modes of discovering self. These ever-changing activities, as adopted and adapted locally, may reflect traditional customs and beliefs but also always conflict with them. In this context, the latest in drug use together with music, dance, sex, self-discovery may serve as a rallying point for rebellious or bored youth seeking novel, here-and-now identification. In keeping up with the times they learn and share with each other and have a sense of participating in a world-wide network of friends, performers, travellers, suppliers, hucksters, fellow-consumers. The expectation is often that these activities are ways to change mood and state of consciousness, to relate with greater feeling and empathy to others and to self—and to have fun. And for some youth the promise remains despite any number of disappointments.

Adolescents need peer groups. They are an important part of growing up. They will thrive or persist only as long as they serve some functions related to the tasks of growing up. Early in adolescence these involve steps toward independence, exploring identity, and testing competence. Later, understanding self and others, intimacy and sharing are important. Even later, the opportunity for commitment to someone or something beyond one's self may be important.

To the extent that other institutions cannot or do not provide these opportunities for learning and growth, the peer group will flourish. The extent to which drug use is involved may be more related to the way in which a community or a society gives meaning to and responds to drug use than to either drugs themselves or to youth. The degree to which that response relates drug use to independence, rebellion, sophistication, status, group membership may increase the attractiveness and utility of at least social use.

Communities

Communities are difficult to define. They may be large or small, integrated or diffuse, homogeneous or heterogeneous, formal or informal. For present purposes they will be defined as the framework within which families, schools, peer groups and other institutions such as church, law enforcement, health and social agencies and government function and which gives identity, meaning and priority to these institutions.

Community, through its institutions, defines the role and function of children and youth. It communicates care and concern or irritation and frustration. It communicates ex-

pectations, both positive and negative. It respects or denigrates. It values or ignores. It resists change or constructively accommodates change. It discriminates or values diversity. It provides for participation or it excludes. It is humane or inhumane.

All of these attitudes, feelings and actions are important influences on the nature and degree of growth and development. Just as families, schools and peer groups promote or retard growth, provide role models and define and set goals for adulthood, communities, consciously or unconsciously, provide models and define goals that are important social influences, both positive and negative, on children and youth. Communities seldom examine what they are communicating to youth. They seldom assess the adequacy with which their institutions are serving the needs of youth. But they are often all too ready to mobilize to deplore and repress the symptoms of neglect.

*Drugs Demystified**

Chapter 7

by

Helen Nowlis

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The business of youth is learning to become an adult in one's particular culture. In childhood one develops, or fails to develop, the basic feelings about self and the attitudes that will be needed in adolescence when increasingly difficult tasks are faced. These are widely assumed to include: a sense of trust that enables the individual to take steps, explore new worlds, try new things, that is, to learn and grow; a developing sense of self as a unique, worthwhile individual with emerging talents and skills and abilities who can make things happen, have some impact on one's physical and social world; a sense of self as an individual who can accomplish things that are both personally satisfying and valued by those who make up one's expanding world.

Without these basic attitudes and feelings, the developmental tasks of adolescence are difficult: to learn to become socially, emotionally, economically independent of family; to learn to become a person with an identity all one's own, and with a past, a present and a worth-while or at least tolerable future; to learn to develop relationships with individuals outside of family that are satisfying and growth supporting; to learn to come to terms with one's own sexuality, to develop one's sex role in the context of one's society's definition and to develop constructive relationships with persons of both sexes; to learn to become mature enough to accept responsibility for nurturing new life and its development; to learn to find a meaning in life that transcends one's self and sustains one.

The institutions in a society—family, school, church, peer groups, community—set the stage and provide the supporting cast.

In earlier societies, the tasks were well defined; occupational, sex and other roles were clear, and role models were ever present and were relatively constant. Ample opportunity was afforded to acquire and practice the skills required to take the place of the adults at a future time, but in essentially the same society. Rites of passage were non-equivocal. When declared an adult, everyone, including the individual, knew that one was an adult, ready for an adult's work, and one was treated as an adult.

Many modern societies are much more complex and less stable, but the basic tasks remain the same. The explosive and rapid changes in technology, in communications, in mobility, in sheer numbers and concentrations of people, the disappearance in some societies of the extended family, the inability to define clearly the careers appropriate in a changing world, the absence of models for these careers that do not yet exist, the heterogeneity of communities with each component struggling to maintain its integrity and that which it values—all these and many more developments have made the tasks involved in becoming an adult less well-defined, more diverse, and more difficult. Key roles in facilitating the process are shifting from institution to institution, from family to school, to peer group, to community. Each society must examine the role of its various institutions in facilitating growth from childhood to adulthood and each institution must examine its responsibility and its performance in ensuring that youth is provided with the opportunity to develop the personal, social and moral, spiritual as well as the intellectual and vocational skills necessary for life in a world adults find difficult to comprehend and youth see only in a glass darkly.

To return to the beginning, it may be that the most important function families, schools and communities can serve is to nurture the sense of trust, the sense of worth, the sense of accomplishment and identity that will enable young people to face an uncertain future and solve the problems they face now and will face in the future.

Most of the factors associated with destructive and deviant behaviours, including destructive drug use, can be traced through family, social, educational, and economic mazes to lack of trust, lack of sense of worth, of being valued, and lack of a sense of accomplishment and ability to accomplish tasks of value to the individual and society.

It is not difficult to be persuaded that most of the reasons young people give for experimenting with or using drugs occasionally or even regularly—curiosity, gaining status with peers, facilitating social relationships, rebelling, increasing creativity, seeking new experience, new insights, increased sensory and aesthetic awareness, searching for meaning in life, gaining temporary relief from the pain, the anxiety, the depression that may occur in the process of learning and growing—have some relationship to the tasks involved in becoming an adult. In most societies, it would be difficult to consider any of these reasons seriously abnormal, provided no one of them was pursued obsessively and to the exclusion of others.

Almost any young person who has failed to develop the basic trust, the sense of worth, the belief that he or she can accomplish, does not have the basic tools for carrying out the tasks or solving the problems of becoming an adult. Learning is risky and hard work. The nature and extent of these problems are closely related to the way in which a society defines and relates to young people. In many cultures, especially the more highly industrialized, the adolescent role is increasingly perceived by youth themselves as one of passivity and powerlessness. This would seem to be true whether youth are excluded from significant participation in the world of work or of community via ever-increasing school-leaving ages, by early entry into an apprenticeship system or by exclusion from both. Neither passivity nor feelings of powerlessness are particularly conducive to growth. Just as childhood is a period of developing or learning skills needed for the tasks of adolescence, adolescence must be a period of elaboration of earlier skills and of new personal and social as well as intellectual and vocational skills needed for responsible and satisfying adult functioning. Maturity is not a mantle to be bestowed at whatever time is deemed appropriate; it is the product of learning and living and growing over a period of years.

Evidence would suggest that if drugs are available and if friends use or approve of the use of drugs, one manifestation of problems may be problems with drugs. Thus drug use may depend more on the environment than on the person as an individual. It is a prime example of the importance of context in the drug-individual-context interaction.

This fact poses perhaps the most vexing problem for those concerned with drug abuse. Does one treat the symptom or the cause? Almost all measures directed at the causes are non-drug specific. If one is not directly attacking drug-using behaviour, is one really doing anything about drug abuse? How does one know that non-drug-specific action will really have an impact on drug use? Can

one afford to ignore the symptoms while treating the causes?

There is increasing willingness, particularly in countries or sections of countries where there is extensive non-medical drug use and where drug-specific responses to such use have been vigorously but not too successfully pursued, to try non-drug-specific responses. This is supported by the experience of some programmes in countries such as Denmark and the Netherlands which insist that by serving youth and all their problems, they are better able to serve those with problems associated with drug use and, in the process, avoid isolating and dramatizing drug-related problems. In the many countries that have set up services designed to respond primarily to drug-related problems whether crisis centres, hot lines, or counselling centres, if these services are trusted and have demonstrated that they can be helpful, they soon find that a relatively small proportion (sometimes less than 20 per cent) of their clients present drug-related problems. The majority present the more prevalent problems of youth—runaways, depression and suicide, venereal diseases, sexual problems, family problems, loneliness and hopelessness. In some instances, they find that even adults and the elderly are turning to them. There are two interesting and contrasting responses to this situation. If their sources of support and their motivation are primarily drug related, they tend to conclude that their services are no longer required and to close; if their support is general and if their concern is with drug-related problems as just one of the many problems youth face, they are not disturbed that they are asked to respond to non-drug-related problems, and they continue to serve youth as needed.

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Conclusion

In rapidly changing societies that are becoming more diverse and more impersonal and whose institutions are less able to respond to rapid changes, communities and nations must continually assess their role in nurturing individuals who feel they are worth while, are competent, are willing to face challenges, even at the risk of failure, and have a reasonable chance to accomplish the tasks their particular society defines as required for successful adulthood. If family, school, church, community and government do not, young people will create their own institutions, among them peer groups, that do respond to their perception of their needs, or they will resort, as individuals or as groups, to deviant and destructive behaviours.

As long as a society hides behind pharmacological agents and believes that if they could only be eliminated, all problems would be solved, the basic problems go unattended. Until young people are supported in thinking through and working out important and meaningful identities and roles in adult society, mature social relationships, and a meaningful relation to life and to whatever God one has, attempts to cope with the 'drug problem' or any other disturbing behaviour will be less than successful. As long as the use of any substance, whether it be alcohol or any other drug, is serving a need, real or imagined, that is not being met in some other way, some will use it unwisely. It is important to recognize that even if the wave of a magic wand could make all these substances disappear, something else would take their place, perhaps more acceptable, perhaps less. As an unintended consequence the medical profession would lose many of its most valuable means for relieving pain and treating a myriad of psychological ills.

Parents and teachers must work with, not for, young people as they identify and strive to cope with the complex problems that a few of them seek to solve or escape from with chemicals. It might help in the long run if adults set a good example.

Young people need understanding and sensitive adults available when needed, a sympathetic and supportive arena in which to struggle with the complex personal, social and ethical problems endemic to fast changing, increasingly impersonal and pluralistic societies. If education and religion cannot meet the challenge, some other institution must.

Young people are using drugs, including alcohol, not as many of them as indiscriminate reports from visible areas and schools would tend to show, but enough of them to suggest that it may be necessary to ask some searching questions about youth, about drug use, about society and its response both to youth and to drug use, and about the adequacy of institutions.

Indeed, such an inquiry may be one of the most positive steps that can be taken as a result of the concern caused by the use of drugs in present society. Taken individually, each answer can but point to partial avenues for action. Together, however, they may constitute the framework for meaningful developments and joint efforts for the benefit of all.

**ALTERNATIVES TO DRUG ABUSE:
STEPS TOWARD PREVENTION**

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Introduction

The sudden emergence of the drug problem and its pervasiveness have demanded immediate personal, social, and governmental response. In response, laws have been passed, treatment centers have been established, and education programs have been developed. The persistence of drug abuse, however, has begun to stimulate novel efforts and innovational programs. A hopeful new emphasis has emerged in the area of alternatives to drugs.

According to espousers of the alternatives approach, motives for drug-taking, whatever diverse pressures generate this behavior, inevitably include the need to escape from boredom, alienation, pain, frustration, and meaninglessness. People take drugs because they make them feel better. Alternatives to drug abuse are defined to include those constructive and viable attitudes, values, orientations, experiences, lifestyles, opportunities, activities, pursuits, and programs which can prevent significant drug abuse or diminish drug abuse by providing greater satisfactions than can drugs.

In this definition, "alternative" is not just another word for "substitute." This publication focuses on alternative pursuits which are most likely preferable to substances misuse—preferable for the individual and for society. However, it must be recognized that words like "constructive" and "preferable" are value-laden. Values are implicit in every approach to major social problems, and the same is true for alternatives strategy, but it seems appropriate to make implicit values explicit. In this spirit the following assumptions are given as underlying the alternatives approach to drug abuse:

1. Human beings have natural internal resources which make drug dependency unnecessary;
2. It is desirable for a social or national entity to protect and nurture these resources;
3. Thus, it is desirable to minimize adverse physical, psychological, and socio-cultural consequences of drug abuse;
4. All levels of drug abuse are undesirable, although drug abuse patterns having the most serious consequences should assume higher priority;
5. It is desirable to minimize recruitment into drug-dependent peer groups and subcultures as well as minimizing escalation to more dangerous drugs.

The alternatives approach is oriented toward those who think that something needs to be done and that solutions are possible. It is the purpose of this publication to introduce and describe new efforts based on the general idea of alternatives to drug abuse. The publication is designed for educators, community groups, drug abuse professionals, treatment personnel, parents, young people. The Clearinghouse invites comments and is interested in collecting information about alternatives programs throughout the country. Information about operating programs will be published in a directory which will be updated periodically. Please send information or materials on alternatives programs to:

National Clearinghouse for Drug Abuse Information
P. O. Box 84
Kensington, Maryland 20795

Alternatives Theory: A Summary

Most discussions of the possible direct causes for drug using behavior lead to a central assumption of alternatives theory—that effective drug abuse intervention programs should respond to the unfulfilled needs and aspirations of the individual. Some might argue that only massive sociocultural, economic and political changes could minimize the causes of drug abuse. Although this position may have long-range merit, the fact remains that immediate action is required under conditions that are likely to remain relatively stable in the near future. This publication focuses on the theory and practice of the possible-examining alternative approaches which can be applied under present circumstances.

The alternatives approach to drug abuse prevention can be described as a useful, perhaps necessary, adjunct to rational legislation, effective law enforcement, compassionate treatment programs and objective drug education. The drug abuse prevention strategy based on alternatives thinking focuses on eliminating the demand for drugs by generating more satisfying options to meet the legitimate needs and aspirations of individuals. The approach emphasizes causes, not symptoms, and is positive, not negative.

These principles have been summarized in recent literature on the alternatives model:

"... It is our presumption that major inroads on drug abuse cannot be made by stressing the undesirability of drugs. It can only be done by offering *more desirable alternative involvements*—activities, life styles and satisfactions which are more *rewarding* than drug experiences and incompatible with dependence on chemicals.

... Thus, it seems logical to review priorities in drug abuse control, and develop programs that will attract persons (especially the young) to constructive alternatives. If the attractiveness of the alternative is sustained as one becomes more deeply involved, drug use becomes increasingly unattractive, since it is the nature of drugs to block efficiency in getting things done." (Emrich, 1971)

The Common Denominator

The common denominator that appears to limit the traditional methods of combatting drug abuse involves their inability to get at the motives and needs behind drug abuse. They deal with the symptom and not the cause. The issue is one of overall strategy. The virtual elimination of polio came not from building more hospitals, iron lungs and rehabilitation facilities, but from research and development of an effective vaccine. Alternatives theorists tend to look at the drug abuse problem with a similar perspective, though the problem is immensely more complex.

The theory behind the alternatives formulation is based on the importance of reacting to the causes and motives behind the multi-faceted drug use patterns in societies and subcultures. This general notion suggests that more constructive alternatives can be found to satisfy motives which now lead to drug abuse.

One author (Cohen, 1971) suggests that a basic motive exists in drug abuse that is central to alternatives thinking—the common sense observation that people take drugs because they want to, that drugs give relative satisfaction in some area of a person's life. Cohen suggests that people take drugs to "feel better" and to get "high"; that they experiment with different drugs in the hope that they will feel better on some level. Alternatives theory hypothesizes that people will stop taking drugs if they find something better, that they will be much less likely to start immoderate drug use if they have satisfying and meaningful alternatives.

Several writers on alternatives to drugs suggest that most people who use drugs are not necessarily criminal characters, rebellious, immature or mentally ill, that most are neither "social misfits," "sick," nor "ignorant" (Dohner, 1972-a). In this view, the majority of drug abusers may be relatively normal individuals who have learned through cultural, peer or personal example, that they should expect "better living through chemistry." Importantly, drugs have powerfully obvious and subtle disadvantages to their promise to provide happiness or release. Because of this, the drug abuser is, sooner or later, essentially open to superior alternatives. In sum, the alternatives emphasis seeks to maximize opportunities for people to explore satisfying non-chemical experiences and life pursuits.

Motives and Alternatives

Logically, alternatives to drugs should correspond to the motives impelling persons toward experimentation or continued abuse. So, before fashioning alternative approaches, it is essential to try to understand the motivational antecedents to drug preference. The immediate reasons for possible drug dependency vary among individuals, leading to different choices of drugs and patterns of use. It might be helpful to categorize some of these unfulfilled needs and aspirations in order to see what types of alternatives can be expected to be appropriate and effective in different individuals and groups.

In writing about adolescent drug use, Arnold Channin (1969) commented that "Teenagers use drugs primarily to find a new level of experience." For both youth and adults, one might say that drugs are used to find a new and/or different level of experience. One way of looking at specific motives involves their categorization by the different levels of experience which are sought, and the types of gratification most appealing to potential drug dependers. Table One is included as a frame of reference for presenting relevant motives. Contents of the Table are derived from articles by Dohner (1972-a), Channin (1969), and Cohen (1971). Each section encompasses one type of experiential level, a kind of gratification which might be sought. Then, a number of corresponding individual motives, needs and aspirations are listed, all of which may be directly related to drug use. After each numbered motive, the reader will find a listing of the types of drugs most probably used to respond to that motive. It should be noted that Table One is not meant to be totally comprehensive, nor should the categories be taken to be mutually exclusive. It is presented as a non-chemical stimulant to alternatives thinking.

Table One
Levels of Experience, Motives and Drug Abuse Patterns

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Most Probable Drugs of Abuse
A. Physical:		
Pertaining to the general feeling of physical well-being, and experience of the body.	1) Physical relaxation	1) Alcohol, tranquilizers (e.g., Librium, Valium, some over-the-counter sedatives, etc.), cannabis (marihuana and hashish)
	2) Relief from pain or anticipated prevention of sickness	2) Physician prescribed drugs, over-the-counter (OTC) drugs
	3) Increased physical energy, avoidance of fatigue	3) Stimulants (e.g., amphetamines, cocaine)
B. Sensory:		
Pertaining to the enhancement, exaggeration, or intensification of the physical senses.	1) Intensification/enrichment of sensory input (e.g., sound, sight, touch, etc.)	1) Psychedelics (e.g., LSD, Mescaline, Psilocybin, STP, etc.), cannabis, occasionally others
	2) Enhancement of sexual experience	2) Alcohol, cannabis, occasionally others
C. Emotional:		
Pertaining to psychological and emotional experience, especially that which occurs within a personality; includes those internal feelings set off by the environment.	1) Psychological escape or release from emotional agony	1) Any, especially narcotics and alcohol
	2) Reduction of normal tension, anxiety, conflict	2) Alcohol, barbiturates, OTC sedatives, tranquilizers, cannabis

TABLE ONE (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Most Probable Drugs of Abuse
C. Emotional: (Continued)		
	3) Emotional relaxation	3) Alcohol, tranquilizers, cannabis
	4) Mood alteration	4) Stimulants, alcohol, cannabis
	5) Desire for psychological/emotional insight	5) Psychedelics, cannabis
	6) Avoidance of decision-making; pressure avoidance	6) Any
	7) Desire for privacy, aloneness	7) Alcohol, narcotics
	8) Rebellion; assertion of independence or defiance of authority	8) Any, especially illicit or forbidden substances
	9) Intensification of personal courage	9) Stimulants, alcohol
	10) Increase in self-esteem	10) Any, especially alcohol, stimulants and cannabis
D. Interpersonal:		
Pertaining to interpersonal relations, acceptance in groups, feelings of communication among individuals, opposite sex relationships, etc.	1) Gain in peer recognition, as in "showing off"	1) Any
	2) Gain in peer acceptance, as in behaving according to "peer pressure"	2) Any

TABLE ONE (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Most Probable Drugs of Abuse
D. Interpersonal: (Continued)		
	3) Relaxation of interpersonal inhibition; facilitation of social interaction	3) Any, especially alcohol and cannabis
	4) Reduction of anxiety-provoking intimacy	4) Narcotics, cannabis, etc.
	5) Reduction in barriers to communication; also solution of interpersonal problems	5) Psychedelics, cannabis, stimulants
	6) Escape/release from family difficulties	6) Any
	7) Escape/release from feelings of loneliness, alienation	7) Any
	8) Establishment of feeling of "community" or belonging with actual or reference group	8) Any
E. Mental-Intellectual:		
Pertaining to the experience of mental and intellectual processes, such as thoughts, ideas, problem-solving, etc.		
	1) Reduction of boredom	1) Any
	2) Curiosity	2) Any
	3) Enhancement of learning processes	3) Stimulants, sometimes psychedelics
	4) Problem-solving, especially technical	4) Stimulants, sometimes psychedelics

TABLE ONE (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Most Probable Drugs of Abuse
E. Mental-Intellectual: (Continued)		
	5) Research on one-self, one's cognitive processes	5) Psychedelics, cannabis
	6) Mental fatigue avoidance, as in studying	6) Stimulants
F. Creative-Aesthetic:		
Pertaining to artistic creativity, the performance or aesthetic appreciation or experience of creative works or artistic phenomena.		
	1) Increase in creative performance ability	1) Cannabis, stimulants, psychedelics
	2) Increase in enjoyment of artistic productions	2) Cannabis, alcohol, psychedelics
	3) Creation of subjective states of fantasy or imagination	3) Psychedelics, cannabis
G. Experiential:		
Pertaining to generalized personal experience of new, unusual or intensified states of experience or consciousness. Usually somewhat difficult to label.		
	1) Desire for "pure pleasure," "fun," recreation	1) Any
	2) Nonspecific changes in consciousness or awareness; e.g., any "high," intoxication for its own sake, desire for a change, any change, in experience	2) Any
	3) Unusual distortion of the sensorium, "freaky" perception and associated experience	3) Psychedelics, cannabis, sometimes stimulants or barbiturates

TABLE ONE (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Most Probable Drugs of Abuse
G. Experiential: (Continued)		
	4) Engagement—the need to be personally and totally involved in the moment, whatever the experience; counteracting apathy and ennui	4) Any, except perhaps tranquilizers
H. Stylistic:		
Pertaining to styles of behaviors and attitudes, especially cognitive styles, cultural styles and life-styles.	1) Need for identification through <i>imitation</i> , by youth of adults, by adults of youth, from media and subcultural "hero" figures; peer imitation	1) Any
	2) Automatic chemical reliance, — i.e., the culturally infused style of substance ingestion for any perceived deficiency	2) Any
	3) Desire for <i>immediacy</i> of achievement; impatience, intolerance of delay of gratification	3) Any; tranquilizers, volatile chemicals, OTC drugs less so

TABLE ONE (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Most Probable Drugs of Abuse
I. Social-Political:		
Pertaining to experiences generated by identification or involvement with social causes or political movements; also reaction to social and political inertia or change.	1) Identification with anti-establishment forces	1) Cannabis, psychedelics; sometimes any illicit substance
	2) Rebellion against disliked laws	2) Cannabis, etc.
	3) Overcoming discouragement or desperation with social-political future	3) Any
	4) Induced change in mass consciousness, sometimes by attempted disruption of "the system"	4) Psychedelics
J. Philosophical: (General and Personal)		
Pertaining to the experience of a guiding philosophy of life, an explanation of the universe; also personal identity, including goals, purpose, and values.	1) Search for purpose and meaning in life	1) Psychedelics, cannabis, others depending on peer group
	2) Organization of experience into a belief structure	2) Cannabis, psychedelics, stimulants
	3) Search for personal identity	3) Psychedelics, cannabis (directly); other drugs (indirectly)
	4) Creation or change in values and philosophical lifestyle	4) Any, especially cannabis and psychedelics

TABLE ONE (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Most Probable Drugs of Abuse
J. Philosophical: (General and Personal) (Continued)	5) Overcoming frustration from lack of meaningful vocation and work	5) Any
K. Spiritual-Mystical: Pertaining to experience with religious, spiritual or mystical characteristics, including intangible internal experiences with spiritual overtones or labeling.	1) Desire for intense spiritual experience, often labeled "higher levels of consciousness" 2) Desire for specific mystical states, e.g., "enlightenment," communication with God, etc. 3) Overcoming frustration with organized religion 4) Augmentation of unorthodox spiritual methodology, e.g., yoga, meditation	1) Psychedelics, cannabis 2) Psychedelics, cannabis 3) Psychedelics, cannabis 4) Psychedelics, cannabis
L. Miscellaneous: Pertaining to combinations of above levels; factors difficult to categorize in one schema.	1) Need for risk-taking, danger 2) Need for adventure, exploration 3) "Vacuum phenomenon," or "What else is there to do?"	1) Any, especially more dangerous drugs 2) Any 3) Any

TABLE ONE (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Most Probable Drugs of Abuse
L. Miscellaneous: (Continued)	4) Economic profit 5) Combination of motives, needs, aspirations—none of which individually would produce drug abuse, but does in a cluster 6) Need to react to extreme mental or physical discomfort; e.g., as in the maintenance of narcotic addiction, or in extreme psychological pain and/or confusion	4) Any illicit substance 5) Any 6) Any

Most of the categories and motives listed in Table One reflect proximate causes of drug abuse. This focus may be the most practical in development of alternatives programs. However, we should note that some alternatives theorists emphasize broader socio-cultural influences. Some of the many socio-cultural factors which have been suggested to be linked with drug abuse are the following:

- 1) General social and political disruption (erosion of confidence in Government, confusion over social goals, ecological uncertainty, etc.);
- 2) Breakdown of the family unit (more broken homes, family mobility, parental absence from the home, etc.);
- 3) Influence of the media (especially the advertising of chemicals);
- 4) Economic imbalance (existence of poverty, ethno-racial economic discrimination, affluence leading to boredom, etc.);
- 5) Rigidity of educational institutions (maladaptive characteristics of public education, boredom in schools, etc.);
- 6) Rapid technologic change;
- 7) Proliferation of value and belief systems; fluidity in standards of morality; and
- 8) Increase in leisure time.

Obviously, such broad problems in the social network breed symptoms of disharmony other than drug abuse.

A. Types of Alternatives

Looking back to Table One, it becomes clear that there need to be multi-varied alternatives for individuals and groups. "Different strokes for different folks" is a central precept in alternatives planning. Certain alternatives will be salient for some people, irrelevant for others, depending on their major unfulfilled needs and aspirations. Effective alternatives programs may be quite different for affluent whites than for poor minority groups, for the young than the aged, or for parents than for single people. It is also important to remember that diverse alternatives approaches must appeal to persons with healthy, creative and positive *aspirations* as well as to those with "problems." Many "healthy" people abuse drugs unnecessarily for positive reasons such as curiosity, emotional growth or the search for spirituality.

Although alternative approaches require diversity and variety, it is reasonable to expect that some will have more overall impact than others. It can be assumed that certain variables such as peer group pressure have more general causative potency among young drug users than others (e.g., relief from sickness). Thus to be effective, alternatives should be fashioned according to the motives most probably influencing the target individual or group.

(1) Time Stages for Alternatives Impact

One way of categorizing alternatives approaches involves analyzing intervention stages in drug abuse behavior patterns.

The first stage, *Prevention*, involves intervention before an individual has begun any drug abuse cycle. Here, the alternatives orientation focuses on developing a natural "immunity" to serious drug dependency. For example, some preventive approaches stress the development of such qualities as personal values, meaning and integrity, self-esteem, better interpersonal skills, greater respect for the natural life, etc., the objective being to create values so that the drug scene will have little to offer.

A second stage may be called *Early Intervention*. Here the target for alternatives programs is the casual experimenter who has yet to become heavily involved or psychologically committed to a drug abuse lifestyle. If meaningful alternatives are able to involve the new marijuana user, the pre-alcoholic, or the weekend experimenter, they can be guided away from further escalation of drug use and prepared for a more chemically free mode of existence.

A third stage may be called *Rehabilitation*, where drug use has severely limited the individual's options and resulted in powerful physical or psychological dependency. Although alternative strategies might be similar to those in early intervention, the alternative involvements must be stronger and especially sensitive to fulfilling the physical-psycho-social needs intertwined with severe dependency. It can be expected that success per unit effort will be less for the *Rehabilitation* stage because most chronic

users are more hopeless and alienated than the experimenter. It is critical that planners maintain sensitivity to the fit between different alternative types and the appropriate intervention stages for the target population.

(2) Types of Intervention Agents

Alternatives approaches may also be seen according to the point of initiation, the intervention agent. Alternatives initiation can proceed along a continuum described by three major categories. The first, initiation by the *Individual*, involves a personal search for alternatives by a user or potential user who may go out and find an alternative on his own. For example, a casual user might discover a book about a certain alternative, follow it up and finally quit the drug scene altogether. On the helping end, it would involve a single individual trying to help stimulate alternatives for others, primarily on his own, without organizational sponsorship.

Institutional initiation refers to alternatives programs administered by institutions, organizations, agencies or governments which attempt to provide alternative pursuits to target populations. An example here would be a new alternatives school program initiated by the school administration and faculty. In this mode, the institution offers alternatives to potential or actual drug dependers.

The combination *Institutional-Individual* mode of intervention features institutional development of an organized alternatives program but requires the voluntary collaboration on the part of the potential benefactors. An example of this case would be an organized group of ex-addicts willing to assist others but requiring commitment and effort from the current user.

These typologies are mentioned since people have different goals in relation to alternatives programming. Conceivably, some could be drug experimenters looking for "a better way"; some might be responsible for the development and administration of formally organized drug programs; some might be concerned citizens, parents or students wishing to use their energies to stimulate others. So, even if the following examples seem to reflect particular emphasis on certain stages of intervention or certain initiation agents, the reader should realize the comprehensive applicability of alternatives thinking.

B. Examples of Alternatives to Drugs

Because the alternatives approach to drugs is still novel and foreign to many, it is often difficult to translate theory into action. Actually, the number of possible specific alternatives to drug-taking behavior is almost infinite. For all practical purposes, one cannot exhaustively list the many and varied alternative pursuits which have promise for counteracting or supplanting a predisposition to substance abuse. Indeed, such prescriptions may impede creative innovation. However, it is possible to give examples which may illustrate the theory and stimulate further thinking.

Table Two lists examples of alternative approaches, pursuits, affiliations and experiences which appear to have potential relevance to the unmet needs and aspirations related to drug abuse. Most of the examples were selected from a logical extension of alternatives theory; others were in-

cluded because of limited clinical or empirical evidence. In order to reinforce the relationship of alternatives to motives, Table Two lists alternatives under the same categories of Level of Experience (Type of Gratification) as found in Table One. Under closer inspection, it is seen that several alternatives listed are related directly to specific Corresponding Motives, Needs and Aspirations presented in Table One.

It can be seen that this list of alternatives covers a broad range of pursuits, all of which could have potential impact on certain individuals at certain stages of their development. It is helpful to be aware of the breadth of creative possibilities; however, these options also require crystallization into action.

Table Two
Levels of Experience and Examples of
Alternatives to Drugs

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Alternative Example
A. Physical:	Physical relaxation	1) Relaxation exercises; "hatha" (physical) yoga
	Relief from pain or anticipated prevention of sickness	2) Dance and movement training
	Increased physical energy, avoidance of fatigue	3) Training in preventive medicine; positive health habits
		4) Dietary and nutritional training and habits
		5) Physical recreation: competitive athletics (especially for fun); individual physical conditioning (e.g., jogging, exercise); hiking, nature study, certain outdoor work, etc.
		6) Gentle addiction withdrawal

TABLE TWO (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Alternative Example
A. Physical: (Continued)		7) Experience and training in the martial arts, e.g., aikido, karate, judo
B. Sensory:	Intensification/enrichment of sensory input (e.g., sound, sight, touch, etc.)	1) Sensory awareness training (including increased awareness of body position, balance, coordination, small muscle control, learning to diminish or intensify sensory input)
	Enhancement of sexual experience	2) Massage
		3) Visual exploration of nature
		4) Responsible sexuality (e.g., possible education in noncoital sexuality for adolescents)
C. Emotional:	Psychological escape or release from emotional agony	1) Competent, empathic individual counseling
	Reduction of normal tension, anxiety, conflict	2) Competent, empathic group psychotherapy
	Emotional relaxation	3) Special therapeutic techniques, e.g., psychodrama and role-playing (expertly conducted)
	Mood alteration	
	Desire for psychological/emotional insight	

TABLE TWO (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Alternative Example
C. Emotional: (Continued)	Avoidance of decision-making; pressure avoidance	4) Instruction in the psychology of personal de- velopment (e.g., in secondary schools)
	Desire for privacy, aloneness	
	Rebellion; assertion of independence or de- fiance of authority	5) Effective educa- tion (including techniques like values clarifica- tion, especially in primary grades)
	Intensification of per- sonal courage	6) Emotional aware- ness exercises, e.g., learning body language, honest, open self- awareness; psychological awareness work- shops and semi- nars (especially for adults)
	Increase in self-esteem	
D. Interpersonal:	Gain in peer recogni- tion, as in "showing off"	1) Creation of alter- nate peer groups
	Gain in peer accep- tance, as in behaving according to "peer pressure"	2) Competently run, empathic experi- ences in peer and group process (in- cluding group dis- cussion, sensitiv- ity and encounter groups)
	Relaxation of inter- personal inhibition; facilitation of social in- teraction	3) Competent, em- pathic group psychotherapy
	Reduction of anxiety- provoking intimacy	

TABLE TWO (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Alternative Example
D. Interpersonal: (Continued)	Reduction in barriers to communication; also solution of inter- personal problems	4) Various "experi- ences in being," including inter- personal work- shops aimed at development of caring, personal responsibility, confidence, trust and respect for others
	Escape/release from family difficulties	
	Escape/release from feelings of loneliness, alienation	
	Establishment of feel- ing of "community" or belonging with actual or reference group	5) Psychodrama, role-playing and other special techniques (ex- pertly conducted)
		6) Competent, em- pathic individual counseling for in- terpersonal trou- bles
		7) Goal-directed, positive group ac- tivities through organizations such as Scouts, 4-H, F.H.A., school clubs, church or- ganizations, etc.
		8) Social confidence training; instruc- tion in social cus- toms, "manners" of human interac- tion (especially for shy children)
		9) Self-examination of relationships
		10) Family life educa- tion and training

TABLE TWO (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Alternative Example
D. Interpersonal: (Continued)		11) Family therapy, family counseling, parent education 12) Premarital and marital counseling/ education 13) Temporary alter- nate families, al- ternate foster homes 14) Emotional "tutor- ing," e.g., big brothers and sis- ters helping younger people 15) Creation of com- munity "rap cen- ters"
E. Mental- Intellectual:	Reduction of boredom Curiosity Enhancement of learn- ing processes Problem-solving, especially technical Research on oneself, one's cognitive pro- cesses Mental fatigue avoid- ance, as in studying	1) Mental/intellectual hobbies and games; e.g., puz- zles, chess, etc. 2) Intellectual ex- citement through reading and dis- cussion 3) Intellectual chal- lenge through education, explor- ing frontiers of knowledge, stimulating curios- ity 4) Introspection; analysis of thought

TABLE TWO (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Alternative Example
E. Mental- Intellectual: (Continued)		5) Memory training 6) Training in problem-solving and decision- making, e.g., "Synectics" train- ing 7) Concentration and attention ex- ercises 8) Training in mind control, e.g., "psycho- cybernetics," auto suggestion, posi- tive thinking, etc.
F. Creative- Aesthetic:	Increase in creative performance ability Increase in enjoyment of artistic productions Creation of subjective states of fantasy or im- agination	1) Non-graded in- struction or ex- periential oppor- tunity in apprecia- tion of artistic productions, e.g., music, art, drama, etc. 2) Opportunities for artistic participa- tion, e.g., non- graded lessons in art, music, drama, etc. 3) Creative hobbies (e.g., crafts, sew- ing, cooking, gar- dening, handi- work, photog- raphy, etc.)

TABLE TWO (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Alternative Example
F. Creative- Aesthetic: (Continued)		4) Experience in communication skills, e.g., writing, public speaking, media, conversation, etc. 5) Theater games; other procedures encouraging imagination and creative fantasy 6) Creation of community centers for the arts
417 G. Experiential:	Desire for "pure pleasure," "fun," recreation Nonspecific changes in consciousness or awareness; e.g., any "high," intoxication for its own sake, desire for a change, any change, in experience Unusual distortion of the sensorium, "freaky" perception and associated experience Engagement—the need to be personally and totally involved in the moment, whatever the experience; counteracting apathy and ennui	1) Self-generated play experience 2) Experiments in sensory deprivation 3) Bio-feedback training, e.g., alpha wave training 4) Sleeplessness & fasting (natural procedures for "intoxicated" states, only with health parameters) 5) "Mind-tripping," e.g., guided daydreams and fantasy 6) Hypnosis (expertly conducted)

TABLE TWO (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Alternative Example
H. Stylistic:	Need for identification through <i>imitation</i> , by youth of adults, by adults of youth, from media and subcultural "hero" figures; peer imitation Automatic chemical reliance,—i.e., the culturally infused style of substance ingestion for any perceived deficiency Desire for <i>immediacy</i> of achievement; impatience, intolerance of delay of gratification	1) Exposure to others deeply and meaningfully involved in non-chemical alternatives 2) Exposure to "hero" figures unfavorable to chemical abuse 3) Enlistment in anti-drug or alternative programs 4) Exposure to philosophy of enjoying the <i>process</i> of attainment, not just the <i>product</i> 5) Parental abstinence and moderation in drug use (parent agreement to cut down to give better example to children) 6) Exposure to philosophy of the "natural," education regarding the artificiality of chemical dependence
I. Social-Political:	Identification with anti-establishment forces Rebellion against disliked laws	1) Partisan political action, e.g., helping candidate campaigns

TABLE TWO (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Alternative Example
I. Social- Political: (Continued)	Overcoming discouragement or desperation with social-political future	2) Non-partisan lobbying, e.g., for ecological projects
	Induced change in mass consciousness, sometimes by attempted disruption of "the system"	3) Personal political involvement, e.g., running for elective or organizational office
		4) Field work with politicians and public officials
		5) Involvement in social service, including:
		a) Providing voluntary service to the poor (e.g., day care for working mothers, helping to locate housing, assisting access to health services, etc.)
		b) Providing companionship to the lonely, (e.g., companions for the aged, foster children, prison inmates, etc.)
		c) Work with schools (e.g., student tutoring programs,

TABLE TWO (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Alternative Example
I. Social- Political: (Continued)		volunteer teaching assistants and counselors, etc.)
		d) Work with drug abuse problems (e.g., peer or volunteer counseling, information provision)
		e) Work in preserving environment (e.g., recycling, identifying pollution, preservation of areas of natural beauty)
		6) Participation in ACTION (e.g., VISTA and Peace Corps)
		7) Citizen "potency" training (i.e., learning effectiveness with Government and bureaucracy)
		8) Voluntary efforts through organizational sponsorship, e.g., YMCA, Boys Clubs, Big Brothers, etc.
		9) Construction of responsible roles in community organization and governance for young people.

TABLE TWO (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Alternative Example
J. Philosophical: (General and Personal)	Search for purpose and meaning in life	1) Seminars, work- shops on values and meaning of life (adults)
	Organization of ex- perience into a belief structure	2) Courses on val- ues, ethics, moral- ity, meaning, etc. (schools)
	Search for personal identity	3) Reading philosophical lit- erature
	Creation or change in values and philosophi- cal lifestyle	4) Values clarifica- tion procedures; identity clarifica- tion procedures
	Overcoming frustra- tion from lack of mean- ingful vocation and work	5) Exposure to philosophical (non-violent) as- pects of martial arts, e.g., aikido and karate
		6) Exposure to metaphysical lit- erature and thought
		7) Humanistic coun- seling oriented toward meaning and values clarifi- cation
		8) Achievement val- ues, from mean- ingful challenge from career or employment
		9) Exposure to indi- viduals committed

TABLE TWO (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Alternative Example
J. Philosophical: (General and Personal) (Continued)		to varieties of personal philosophies
		10) Creation of com- munity "growth centers"
		11) Maximization of ethnic, racial and minority pride
K. Spiritual- Mystical:	Desire for intense spiritual experience, often labeled "higher levels of conscious- ness"	1) Study of spiritual literature; in- creased library holdings relevant to non-chemical spiritual methods
	Desire for specific mystical states, e.g., "enlightenment," communication with God, etc.	2) Creation of infor- mation centers for spiritual alterna- tives
	Overcoming frustra- tion with organized re- ligion	3) Exposure to holy men of different belief systems; exposure to dif- ferent techniques of applied spiritu- ality
	Augmentation of unor- thodox spiritual methodology, e.g., yoga, meditation	4) Meditation
	Pertaining to the ex- perience of a guiding philosophy of life, an explanation of the uni- verse; also personal identity, including goals, purpose, and values	5) Yoga (especially non-physical components)
		6) Contemplation and prayer
		7) Spiritual dance and song

TABLE TWO (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Alternative Example
K. Spiritual- Mystical: (Continued)		8) Increased course offerings in intellectual and experiential components of spiritual study (especially college level and secondary level)
L. Miscellaneous:	Need for risk-taking, danger	1) Sky-diving; scuba-diving, etc.
	Need for adventure, exploration	2) "Outward Bound" survival training
	"Vacuum phenomenon," or "What else is there to do?"	3) Exploration of new physical environments, e.g., flying, soaring, camping in wilderness areas, etc.
	Economic profit	
	Combination of motives, needs, aspirations—none of which individually would produce drug abuse, but does in a cluster	4) Competence of "self-reliance training," e.g., vocational and occupational education, instruction in household technology (i.e., autos, electronics, plumbing, household appliances, etc.)
	Need to react to extreme mental or physical discomfort; e.g., as in the maintenance of narcotic addiction, or in extreme psychological pain and/or confusion	5) Family management education, i.e., accident prevention, childcare, money management, first aid, menu and diet planning, etc.

TABLE TWO (Continued)

Level of Experience: Type of Gratification	Corresponding Motives, Needs, Aspirations	Alternative Example
L. Miscellaneous: (Continued)		6) Vocational counseling leading to meaningful employment
		7) Credited work experience through schools, e.g., house-building, merchandising, service station maintenance, restaurant training, etc.

Evaluation and Research

Too often, the urgency or ideological enthusiasm of anti-drug programs has precluded adequate evaluation and research. The same problem is possible in the alternatives area, where three pertinent questions should be raised: (1) What criteria for alternatives programs might best predict success or failure?, (2) How does one know if alternatives "work?," and (3) What research and evaluation strategies are needed to clarify effectiveness factors in the implementation of alternative approaches?

A. Evaluation of Alternatives: Practical Criteria

The fact that a set of behaviors or attitudes supplants drug abuse does not necessarily recommend it. The key to viable alternatives is a preferable and healthy option, not an equally destructive one. For example, joining a violent delinquent gang might replace drug using behavior, but this particular "cure" might be much worse than the symptom. To be consistent with the assumptions stated early in this publication, a successful alternatives thrust must become a true alternative and not merely a substitute. Thus, a well-run therapeutic community incorporates alternative emphases, especially when the addict is still a successful resident. The effectiveness of the alternatives offered in the therapeutic program ultimately depends on the progress of the resident after he re-enters society. Generally, then, a successful alternatives program should help a person develop those qualities leading to drug independence, with the capability to adapt in meeting the challenges of self, others, and society.

Based on alternatives theory, there are other *a priori* criteria which might define helpful guidelines to evaluation. For one, any alternative should tend to be or become relatively incompatible with drug abuse. For example, "listening to music" is not necessarily a promising alternative to drugs since one can be passively "stoned" at the time. However, training in active listening and deep study of music is more likely to be frustrated by drug use since the clarity of one's senses and cognition becomes more important.

In all practicality, the incompatibility of constructive alternatives and drug use can be subtle and may take time to become evident to a user. Informal data suggest that drug use should be discouraged during actual alternative involvements in order to make the distinctions come easier. For example, many have recommended alternative education or alternative schools as tools for alleviating the symptoms of drug abuse; but there appears to be increasing evidence that alternative educational input should be as free from chemicals as possible to be maximally effective. However, total abstinence, at least in the initial stages, is usually an unrealistic expectation.

Another stylistic criterion for possible effectiveness can be based on the tremendous passivity in drug abuse, the "taking in" with little effort, the waiting for "it" to "happen." Expect, then, for alternatives to be more effective as they call for activity, assertion of will, effort and commitment, and less successful as they construe the target individual as the passive recipient of some input. Preliminary observation suggests that *involvement* is one critical factor in successful alternatives programs, the drug abuser or potential abuser should be personally involved in some non-chemically

based life pursuit, whether ordinary or exotic. Indeed, the content of the alternative pursuit may be much less important to the individual than the process of finding it or developing it. The value and energy given to the search for alternatives is a potent alternative in itself, whatever the object of search.

The literature on alternatives adds some additional requisites for successful approaches. Dohner (1972-b) comments:

"To be acceptable and attractive, any alternatives we offer must be realistic, attainable and meaningful. Any proposed alternative must assist people to find self-understanding, improved self-image, feeling of significance, expanded awareness or new experiences which they seek through drugs. These alternatives must also meet other criteria:

1. they must contribute to individual identity and independence;
2. they must offer active participation and involvement;
3. they must offer a chance for commitment;
4. they must provide a feeling of identification with some larger body of experience; and
5. some of the alternatives must be in the realm of the noncognitive and the intuitive."

Even in such intangible areas as the religious-spiritual, the literature offers criteria for evaluation. Cohen (1971) has cited the following as likely signs of a successful spiritual alternative:

- a. the generation of a positive view of human nature and oneself;
- b. an attitude of relative tolerance toward other alternative movements, the absence of hostile fanaticism;
- c. applicability of the alternative to ordinary life in society;
- d. evocation of better feelings toward others and increased interpersonal effectiveness; and
- e. emphasis on the attainment of love and wisdom vs. power and control of others."

In parallel, Dohner (1972-b) suggests that the qualities of positive alternative religious experience must:

- a. be extremely personal, applicable to everyday life and constantly evolving;
- b. produce recognition of a force or entity greater than the individual;
- c. be involved with the questions of self-fulfillment and the ultimate purpose of life;
- d. produce an indescribable state; and
- e. produce discernible positive changes toward self, others, life and the experience."

One other criterion applies more to the organized programs than the content of alternatives. This involves the degree to which a program is well organized, possesses effective leadership and has the capability of working within the social and political atmosphere of the community. In social action programming, effective people are equally as important as effective ideas.

B. Effectiveness of Alternatives Strategies

Understandably, the short shrift given to evaluation in the urgency to respond to drug abuse has affected the alternatives area and therefore evaluative research is somewhat scant. However, the emerging data seem encouraging. The empirical data consist of two types: clinical-observational and statistical. The clinical and observational studies are less formalized and tend to focus on individual cases and programs rather than general trends. They seem to be lending more and more credence to some kind of alternatives approach when they study successes in early intervention and rehabilitation. For example, it seems appropriate to conclude that many of former drug users discontinue drug use because of some more favorable alternative in life. Expectably, the more intense the drug dependency, the more intense and personally committing the successful alternative seems to be (e.g., for ex-opiate addicts—Synanon, fervent religious commitment, total involvement as ex-addict drug counselors, massive reorientation in lifestyle, job and family life, etc.). In a small corroborating study of more "moderate" former drug users (primarily psychedelic drugs), 11 of 32 subjects reported discontinuing drugs because they were "beyond it spiritually or psychologically." Two subjects cited "goal interference," and the remaining 19 pointed to "health concerns" (Cohen, 1968). It was noted that even where health concerns affected discontinuance, most interviewees related these concerns to some valued activity, pursuit or existent relationship which necessitated adequate health. Very few subjects reported significant physical pain, mental agony or general discomfort as being the motivating factors for their discontinuance.

Although the empirical criteria for effectiveness (including measurement of long-term discontinuance of drug abuse) of alternatives programs may be possible to construct when dealing with the rehabilitative and early interventive stages, criteria for prevention raise a more difficult question. Any preventive research on individuals is exceedingly difficult because a researcher is haunted by the question, "How do I know that the person would not have avoided drugs even if the alternative were *not* offered? Further, "How do I know that possible "failures" of the alternative strategy (e.g., primary school students who go on to experiment with drugs) would not have been much more severe drug dependers had they not been exposed to the alternative?" Truly rigorous research would include large sample longitudinal studies with closely followed control groups, a very difficult feat.

Yet there are other research strategies which show promise for the preventively oriented investigator, even if they are a bit less elegant. An apparently simplistic, but powerful, procedure is to ask the subjects what you want to know. Illustrating this was a most interesting study designed by high school faculty and students (San Leandro Study, 1969). A drug use questionnaire, anonymous and distributed by trusted peers, was collected from approximately 800 students at a suburban high school in the San Francisco Bay Area. In addition to other questions, the *non-users* (about 400) were asked the question, "If you do *not* use drugs, what has been the biggest deterrent for not using them?" The 260 completed responses to this open-ended question were categorized and generated the following results:

Biggest Deterrent

Percentage*

1. No Need (life is fine, I'm happy, I turn on other ways, etc.)	39.8
2. Physical or mental health or athletics	22.4
3. Laws (respect for the law and fear of getting busted)	7.1
4. Brains and good judgment (i.e., having them)	6.2
5. Fear of the unknown	6.0
6. Seen results in other people	4.9
7. (Out of) Love and respect for parents	4.4
8. Fear of addiction	3.4
9. Friends (i.e., peer pressure against it)	3.2
10. Other (not yet been contacted to take drugs, personal values or religion, unfavorable past experience, poor quality of drugs, and don't know)	10.2

*N = 260 students, percentage adds up to over 100% because of some combinations of reasons

If the total percentage of apparently *negative* reasons for avoidance are totaled (categories 3, 6, 8 and 9), the figure is 18.6%. Explicitly *positive* categories (i.e., expressing the primacy of positive alternatives or values in contrast to fear of something) total 44.2% (categories 1 and 7). Responses in category 2 were not fully analyzed, but many students worried about health problems in relation to goal interference, i.e., not being able to continue some valued activity, like athletics.

These results are entirely consistent with growing observational data suggesting that legal constraints plus scare-oriented education are only very limited deterrents. Even in this population, where alternatives programs were not specifically generated in the school, the bulk of non-users reported that some kind of alternatives orientation (even if it only meant satisfaction with non-chemical life) was the decisive preventive factor.

In sum, although tightly controlled research of clinical, observational and statistical nature is just beginning, the early results seem to encourage the continued development and testing of the alternatives components.

C. Suggestions for Further Research and Evaluation

Admitting the difficulties in evaluation of alternative programs, there may be helpful guidelines. For one, the richness of early clinical and depth interview studies suggests that the simplest research strategies can be effective. Pre-users, users and former users can generate considerable information if asked in sympathetic ways. At the least, it can be very helpful to interview a target population before, during and after intervention efforts.

Another promising type of research technique was illustrated above. Considerable research has focused on the reasons why people use drugs and what personality types might be dependency prone. However, such a strategy may have diminishing returns as a near majority of Americans, particularly the young, are predisposed to experiment with drugs. It may become increasingly futile to try to identify high risk individuals before dependency sets in, since there are more and more high risk individuals. More salient to an alternatives outlook is expanded research on reasons why drugs are *not used* or discontinued. (E.g., why do most young ghetto dwellers *not* become heroin addicts?) This could lead to rational assessment of priorities when developing alternatives programs for different groups and locales.

Considering the actual evaluation of structured alternatives programs, Emrich (1971) gives a basic paradigm:

"The evaluation essentially must take place on two levels, the community level and the individual level. . . . On the basis of theory, one can rather specifically define the qualities that would make up an effective alternatives program, on many of the dimensions of that program. One can also describe the impact that such a program would have on the personality of the participants, in contrast to the development that would occur had they continued in a drug-taking mode.

The basic hypothesis to be tested by the evaluation is that a successful alternatives program — that is, one that fulfilled most closely the a priori definition of an effective program — would be accompanied by the most perceptible drop in drug abuse and the most significant impact on the target social problems. Another hypothesis is that a successful program would produce most noticeably, and in the largest number of participants, a more constructive pattern of personal development."

Emrich goes on to give examples of monitoring several communities, their drug problems, social problems and individual case followup. In describing the final data analysis, he offers possible predictions made by an alternatives evaluation team:

- "(1) That the communities having the most effective programs would also have the greatest fall-off in the prevalence of drug use;
- (2) that the most effective programs would have the greatest social impact on the problems of choice;
- (3) that the participants in the most effective programs would have the greatest satisfaction with the programs; and
- (4) that the most effective programs would facilitate the most positive personal development on the part of the participants."

As well as encouraging objective outside evaluation, as suggested above, it is important for alternatives programs to build in evaluation systems as part of their own projects, that they monitor their relative effectiveness for their own advantage. It is suggested that they involve the target population in this procedure. Because no alternatives program is an island, planners are encouraged to think about the research possibilities of their programs and extend their evaluation plans into research designs which may generate knowledge about the reasons behind success or failure.

Techniques of Generating and Implementing Alternatives

It is anticipated that more of those concerned with the drug abuse problem will be wanting to turn to alternatives approaches. Given an idea of the theory, some examples of promising programs, warnings about evaluation and assuming interest on the part of the reader, the question arises, "How do I (we) get alternatives approaches started?" Again, techniques for generating alternatives differ according to the identity and motives of the initiators and target populations.

A. Communications

Contacting the Population

One of the major qualities of an alternatives program involves getting its message through to potential participants. There are various ways to reach people where they are, but this should be considered during the planning stages.

Some projects may opt for the person-to-person, word-of-mouth approach, probably the most powerful method, but also the one requiring the greatest expenditure of time and energy per person contacted. Other projects may concentrate on the media. (Remember, though, that followup is a prerequisite.) Some work with a "captive audience," and focus on institutional settings which require attendance (schools, prisons, etc.). Still others contact their people through "diversion," i.e., contacting persons after they have already come to the attention of the system (court and probation referrals, mental health crises, addiction clinics, etc.).

The nature of the contact is also crucial. The opportunity to participate must seem as inviting as possible, whether participation is voluntary or not. (Incidentally, a general rule is that programs are more successful when there is a voluntary component. However, adults, particularly parents, are notorious for their apathy in response to voluntary drug abuse prevention programs, so extra effort must be expended to enlist their active participation.) Effective, credible and attractive communication is immensely desirable for any new alternatives program.

B. Hints for the Intervention Agent

For the concerned individual, small groups, or representatives of agencies of the community, who wish to initiate a more alternative based program in their sphere of activity, some helpful hints might include the following:

- (1) Know what you hope to accomplish. Make your values, expectations and goals explicit. Are they reasonable? too ambitious? credible?
- (2) Know whom you want to assist. What is the target population? If you cannot appeal to everyone, who are your priorities?
- (3) Understand the target population. If the population is using drugs or favorably disposed toward them, why? What satisfactions are being sought? If you don't know, ask. Conduct surveys, interview your subjects in confidential and empathetic surroundings. Find out what is most likely behind the drug use patterns. Your task is to find the most relevant levels of

experience from the population and fit the alternatives emphasis to their needs, not the converse.

(4) Survey current resources. Get comprehensive information on the pre-existing drug programs which are affecting the target group. Discover other alternatives-oriented programs in your area, even if they are not directly connected with the drug problem. Interview non-users and find out what they have gotten interested in.

(5) Involve the target population in planning. Try not to impose an alternatives approach on anyone; use the talents, resources and opinions of the target group as a guide for implementation. Let them become involved; this itself is a potent alternative.

(6) Start asking about new possibilities. Ask every contact about possibly effective programs; read the literature. Use the interests of the planning group and friends.

(7) Get political know-how. Be aware of the political and bureaucratic situation affecting possible programs. Try to enlist the support of important community forces. Cooperate with other groups. Know the roadblocks to implementation of new programs and plan for overcoming them.

(8) Use the drug abuse issue to assist implementation. You may opt for alternative approaches which directly affect the underlying needs for drugs, the conditions which nurture drug abuse. These may be controversial so you may do well to introduce your program as an anti-drug abuse program. Unless your approach has inherent weakness or unacceptability, it is difficult to resist well planned innovation billed as drug abuse intervention.

(9) Don't be afraid of making mistakes. Some alternatives approaches are hit and miss affairs. For various reasons, some may not be successful in the ordinary sense, especially at first. But these can be learning experiences, for the community as well as the planners. Only by feedback, some necessarily negative, do you get to the heart of the situation and know what works.

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CHART

INSTITUTIONS	FAMILY	SCHOOL	COMMUNITY
SKILL			
COMMUNICATION			
VALUE (Values Classification)			
DECISION MAKING			
SUCCESS & RESPONSIBILITY			
NEEDS OF YOUTH			

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SUBJECT BIBLIOGRAPHY, RESOURCE, AND REFERENCE LISTS

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NOTES

For additional resources and information that were an integral aspect in the development of this module, contact:

San Fernando Valley Mental Health Center
16930 Sherman Way
Van Nuys, California 91406

Richard H. Hochman, Coordinator of Drug Abuse Services

Project Focus
Glendale Guidance Clinic
417 Arden
Glendale, California 91203

Miriam Black/Project Director
Sheila Namir, Research and Planning Director

PROMISING PROGRAMS

ALPHA CENTER
1710 N. Colonial Drive
Orlando, Florida 32804
(305) 420-3682

Alpha Center is a prevention component of Thee Door of Orange County, Florida, a comprehensive treatment program. The Center offers prevention services at the elementary school level, targetting "high Risk" students (ages 8 - 12) exhibiting behaviors (e.g., disruptive in classroom, low academic achievement, family difficulties) thought to lead to drug abuse and other self-destructive behaviors.

An elementary school is "targeted" for eleven weeks, during which the students identified for the program spend three days per week at the Alpha Center. Activities at the Center include an individualized math and reading program, arts and crafts, physical recreation, individual and group counseling and other affective group processes.

Parents must consent to the involvement of their children and must agree to participate in weekly parent meetings covering such topics as communication skills, positive reinforcement and problem solving techniques.

Teachers attend three days of in-service training at the Alpha Center to learn various classroom management techniques and interpersonal communication skills. The goal is to promote a more positive classroom environment.

*ALTERNATIVES, INC.
2546 West Peterson Avenue
Chicago, Illinois 60659
(312) 973-5400

Alternatives, Inc. is a private, non-profit corporation that operates both prevention and intervention programs. It sponsors community-based alternatives projects, e.g., a newspaper recycling project that has developed into a self-sustaining cooperative. High school students initiate and operate the projects while Alternatives, Inc. provides office and work space, financial support, and technical assistance. Over two hundred fifty youth are involved in these projects each year, including small numbers of blacks, Latinos and Asians. Staff members feel that the projects have been most successful with lower and middle-class white youth who are relatively "problem-free;" young people already involved in drug abuse or other dysfunctional behaviors are less likely to benefit from these activities.

Alternatives, Inc. also sponsors a school-based "rap" program, a clinical program offering short-term counseling and Peer Counseling training, and some groups for parents aimed at demystifying drug issues. The project began in 1971. The prevention component is supported by grants from the National Institute on Drug Abuse and the network of state drug programs.

*Excerpted from Balancing Head and Heart: Sensible Ideas for the Prevention of Drug and Alcohol Abuse; Book 3. Prevention Materials Institute Press, Lafayette, CA 1976.

***ALTERNATIVES THROUGH PEER TEACHING**

Lawrence Hall of Science
University of California
Berkeley, California 94720
(415) 642-4193

This Peer and Cross-age Teaching program at the junior high school level is designed to involve alienated students and those with poor self-concepts in positive academic experiences. First, selected students are trained to teach arithmetic and conceptual mathematics. After training, they share the responsibility with adult teachers for teaching regularly scheduled fifth through eighth-grade math classes. Peer teachers run the class alone or in pairs two days each week. They are responsible for discipline, homework and tests, and assigning term grades to their students.

Peer teachers also train their students to teach. Once prepared, these students are given responsibilities for teaching their own classes, or helping their classmates.

Program research has shown that students who have peer teachers for two days a week do as well in math as students who are taught only by a regular adult teacher. In fact, students who were previously low to average achievers do a lot better in math with peer teachers.

The project was originally sponsored by the University of California, with joint funding through the National Institute of Education and the Oakland School District. The program works primarily with blacks and Spanish-speaking students.

***CHARLOTTE DRUG EDUCATION CENTER, INC.**

1416 East Morehead Street, Suite 201
Charlotte, North Carolina 28204
(704) 374-3211

This private, non-profit corporation focuses on drug abuse prevention through programs for parents, teachers and youth. In a survey conducted in Charlotte in 1971, the following were identified as correlates of youthful drug abuse: poor self-image, boredom, rebellion, and poor parent-child communication. Consequently, the Drug Education Center has developed programs aimed at ameliorating these "high-risk conditions". Among its offerings are Parent Effectiveness Training workshops for parents, and drug abuse information and drug awareness workshops for teachers and administrators. The Center's most featured component is its Ombudsman program, a type of Peer Counseling program. This program, taught by Center staff members, is offered in local junior and senior high schools as an elective class in helping relationships. Class experience includes training in Active Listening and other communication skills. Students are urged, but not required, to initiate a helping project in conjunction with the class. Such projects generally include Peer Counseling, Cross-age Tutoring and interning in social or helping institutions.

The Drug Education Center was started in 1971 and is supported by grants from the Law Enforcement Assistance Administration and the local Junior League. About 3,100 parents, teachers and students participate in the Center's programs annually. The client population is about 25% black.

⁺COMMUNITY ORGANIZATION FOR DRUG ABUSE, MENTAL HEALTH & ALCHOLISM SERVICES, INC.
(CODAMA)
1001 N. Central Avenue
Phoenix, Arizona 85004
(602) 252-8985

This school-based program operates out of four schools in the Phoenix area. (Cartwright, Alhambra, Roosevelt, Washington) It is a primary prevention program designed to incorporate members of the local community with emphasis on the involvement of parents. Young people (8th grade students) are trained to work with elementary students and they are encouraged to develop their own ideas for the program. The staff of 14 paid workers and 35 volunteers work with about 640 students weekly at the four schools. The program was evaluated in 1974 by Dr. Kimberly Obitz.

COPAS YOUTH PROJECT
P.O. Box 1312
Santa Fe, New Mexico 87501
(505) 983-6368

COPAS is a "community corporation" working for the prevention of drug abuse in the barrio. Through a program of cultural awareness, youth, ages 12 - 18, explore the unique qualities of the barrio. By becoming aware of negative factors in the barrio that may lead to drug abuse and by building on its cultural and social strengths, youth learn to cope with its realities. Opportunities for involvement in the community (e.g., advocacy and problem-solving activities) are encouraged by COPAS, specifically, activities in which peer group recognition and time use are unrelated to drugs.

*DARTE
Wayne County Intermediate School District
33500 Van Born Road
Wayne, Michigan 48184
(313) 274-5006

DARTE's highly skilled and experienced staff provides in-service training to thirty-six school districts in Wayne County. They also do a limited amount of community-based work with police departments, crisis intervention centers, PTA's and drug treatment programs. Topics covered in various training offerings include: affective education, substance abuse education and prevention overviews, pharmacology of drugs, school/classroom climate, Parent Effectiveness Training, teacher/student interaction, alcohol education, smoking prevention, problem-solving and decision-making skills, Alternatives, Values Clarification, trust building activities, communication skills, and Peer Counseling. Recently DARTE trainers have concentrated

⁺ Excerpted from National Search, A Catalog of Alternatives for Young Americans:
National Institute on Drug Abuse, Rockville, MD, 1975

on longer-term in-service programs and extended followup.

DARTE also publishes materials on Alternatives, Values Clarification, affective education, and communication skills.

The program began in 1970 and is currently funded by the Michigan Department of Education.

***DRUG EDUCATION THROUGH THE HUMANITIES**

SCS Television Studio
3636 South Shade Avenue
Sarasota, Florida 33579
(813) 955-8197

This project's drug education program relies on student-produced videotapes and a systematic decision making model. The program assumes that student involvement in program development helps assure its relevancy and acceptability to young people. All videotapes are written, enacted and researched in part by junior and senior high school students. Eight videotape productions have been developed for each target grade, covering such topics as the pharmacology of drugs, the psychology of drug use, drug abuse as a social problem, finding alternatives to drug use, and understanding self.

In each class, students view the tapes and read supporting materials over a two week period. Teachers are prepared via in-service training to use the videotapes as a way of stimulating and focusing class discussion. The project began in 1972 with an ESEA Title III grant, and currently involves all eighth and eleventh graders in the school district. More than two hundred students have been directly involved in developing program materials, which have been presented to about 1,200 other students. The school population is 15% black.

EASTSIDE OPPORTUNITY HOUSE, INC.
5125 E. Washington Street
Stockton, California 95205
(209) 948-4357

Building self-esteem in children in grades K-3 is the main goal of Eastside Opportunity House. Based on the philosophy that a person must feel good about him/herself in order to develop cognitively and affectively, this program works with children in the classroom using such strategies as positive reinforcement, transactional analysis, values clarification. Puppet shows and songs are an integral part of the program.

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+EL TEATRO ESPIRITU DE AZTLAN
225 East Ash Avenue
Fullerton, California 92632
(714) 525-4708

One of the unique qualities of this program is that it uses the theatre to help "turn people on" and return them to a positive way of life. Since 1972 this heavily community oriented program has offered alternatives to boredom and destructive behavior by letting the youth build a positive self-concept through activity. Techniques involved are improvisations, skits, psycho-drama and video-taping. These presentations are made available for the community, schools and the general public, free of charge. The participants are responsible for setting up performances, writing scripts, choosing materials to be presented and the actual presentation to the public.

+FLORIDA OCEAN SCIENCES INSTITUTE
1605 South East Third Court
Deerfield Beach, Florida 33441
(305) 427-8445

The main objective of this program is to develop the attitude of responsibility in youngsters between the ages of 15 and 17 years. In this process, the intellectual and academic growth is encouraged along with the youth's emotional and occupational development. Established in 1966, this school program deals primarily with ocean life, believing that the ocean has always been a source of motivation, and offers services like counseling, recreation, vocational training and courses that can lead to the acquisition of a high school diploma. The courses offered involve marine life and incorporate concepts such as math and physics with scuba diving. With nine full time employees and eight part time there is always someone available for the youth who live-in at the Institute. The Ford Foundation and the Division of Youth Services have evaluated the program.

+GLOUCESTER EXPERIMENT
P.O. Box 15
Gloucester, Massachusetts 01930
(617) 283-2503

Gloucester Experiment is a community partnership project with wide agency participation. Its multi-faceted alternative programming includes: career exploration, paraprofessional training, revitalization of lost crafts and trades, referrals, counseling and restoration of colonial burial grounds and monuments. Since May of 1973 the six staff members and 100 community volunteers have serviced 100 high risk young people annually between the ages of 16 and 25. The youth participants who are moving toward paraprofessional status accept responsibility and have input into the program.

***HUMAN DEVELOPMENT AND GUIDANCE**

Department of Education and Cultural Services
Office Building Annex
Augusta, Maine 04330
(207) 289-2181

This state-operated program is based on the premise that prevention can be best accomplished by making schools responsive to the individual needs and concerns of the students. The program trains elementary-level teachers throughout the state in Magic Circle, communications theory, Values Clarification and Transactional Analysis. Curriculum resources and group process materials are also provided for classroom use.

The teacher workshops have been extremely popular, and 56% of the participants report using Magic Circle in their classrooms at least once a week. About eight hundred teachers across the state are trained yearly.

**MEXICAN-AMERICAN NEIGHBORHOOD CIVIC ORGANIZATION
(MANCO)**

2811 Guadalupe
San Antonio, Texas 78207
(512) 435-0556

MANCO is a substance abuse prevention program in San Antonio, Texas, designed to reinforce the values of the Spanish-speaking communities. Its heavy emphasis on youth involvement in planning and operations has produced a following among both youth and their parents. Youth participate in cultural programs (arts, mural painting, theater, drama) all related to their culture and community. A sports program emphasized positive health habits and personal growth as opposed to competition and physical exercise.

Task forces of youth study their community business establishments which sell inhalants and substances and meet with them to vigorously enforce city ordinances pertaining to the same of these substances (glue, lacquer, paint).

A parent-child forum is held in each neighborhood. Parents are taught organizational skills in order to develop their own "consilios" (advisory councils) for grassroots action. They help other parents become aware of and resistive to the fear created in the barrios by drug pushers.

The major contribution of MANCO is youth and parent involvement in alternatives and action-style prevention such as task forces and concilios. Staff are technical assistants and consultants to the youth and neighborhood programs.

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*MIDDLE GEORGIA COUNCIL ON DRUGS
195 Holt Avenue
Macon, Georgia 31201
(912) 743-4611

This community linked program which started in September, 1970 attempts to enhance a child's development by developing a positive self-image. The program trains older students to work with the younger students in the school system. The students participate in planning the training sessions and conducting the program. They range in age from 5 to 25 and number 32,000 annually. Six paid staff members and seven volunteers work with the students. In-house evaluations have been conducted.

*OHIO DEVELOPMENTAL DRUG EDUCATION PROGRAM
Parma Public Schools
6726 Ridge Road
Parma, Ohio 44129
(216) 842-5300

The Parma schools implement the Ohio Developmental Drug Education Curriculum, developed by the Educational Research Council of America for grades K-12. At the elementary level, teachers use the Curriculum manuals to meet both affective and information needs of their students. For example, if lack of cooperation becomes a classroom problem, the teacher selects suggested activities from the Curriculum for fostering student cooperation.

In the upper grades, the emphasis is on drug information. At the junior high level, drug information is taught as part of the science and social studies curricula. At the senior high level, the information is taught as part of the health curriculum.

DUSO and Values Clarification strategies are also used in the Parma schools. In-service training is provided in all methods and materials.

Originally funded by the State of Ohio in 1972, the program is presently supported by the local school district. The school population is largely white.

PREVENTION PROGRAM
Mount Senario College
Ladysmith, Wisconsin 54848
(715) 532-3391

Theater and the related performing arts are learned and performed by high school students in rural Wisconsin and among reservation Indian youth. Mount Senario College directs this alternatives program (10 high schools). Two Indian reservations and 4-H clubs participate, among other groups.

Students learn production of plays, beginning with creative writing and culminating in performances before live audiences. They do traditional plays, mime and musicals. They learn to appreciate performing arts (dance, mime, music, drama). The reservation program concentrates on learning Indian cultural dances and religious ceremonial activities. College professors are the teachers and stimulate the activities. High school teachers and students participate.

While substance abuse is not the focus, a clear theme is "any abuse of the body injures creativity." Participation in the performing arts demands mental alertness and physical stamina. It also provides an opportunity to look at self.

* PROFESSIONAL RESOURCES IN DRUG EDUCATION
(PRIDE)
5975 E. 7th Avenue
Hialeah, Florida 33013
(305) 685-7492

This is the drug abuse prevention program for the entire Miami School District, K-12. The target population consists of 250,000 students and includes sizeable proportions of black and Cuban children. The program's philosophy holds that drugs are not the problem but that drug abuse is symptomatic of other "people problems".

The program provides each school with its own "drug specialist", who adapts the core curriculum to the nature and needs of the particular school. The core curriculum contains the following elements: Drug information through Values Clarification, Magic Circle, DUSO, Peer and Cross-age Counseling, Various Alternatives activities, e.g. yoga, macrame, meditation.

This eclectic program also distributes a variety of publications in affective education. The project's own publications include Developing Real Understanding and Growth in Students.

PROJECT COMMUNITY
2508 Hillegass
Berkeley, California 94704
(415) 642-1855

This project trains high school teachers in "self-understanding" with the intent that they become more capable of handling the problems of their students. Within each school a core of teachers, administrators and/or students are trained so that the program can eventually become self-sustaining. With the training background provided, teachers should become more involved with their students and better able to understand youth involved in drug use. Each teacher will form within their school a "Project Community", which can consist of alternatives projects and peer support groups.

*PROJECT EDEN, INC.
22738 Mission Blvd.
Hayward, California 94541
(415) 538-3818

This school-based program was started in September 1973 to develop an effective way of preventing drug abuse. The services offered include classroom presentations, informal raps, individual and group counseling, crisis intervention, referrals, training sessions, workshops and alternatives (i.e., meditation, yoga, backpacking, wilderness survival trips). The young people involved in planning and implementing the program are between the ages of 11 and 18 years and number about 400. Also involved are about 10,520 clients dealt with through contact services and 260 adults reached directly. The staff consists of nine paid employees and 15 volunteers. The program was evaluated in 1974 by Approach Associates for the Alameda County Administration Office.

SHALOM/DISCOVERY LEADERSHIP INSTITUTE
1213 Clover Street
Philadelphia, Pennsylvania 19107
(215) 567-6974

This program is a leadership training institute for teenage boys. Drug use is not allowed on the premises, but beyond this the program does not talk to the boys about drugs.

The boys become members of the Institute and receive training in social service work, community involvement activities, public speaking, and organization techniques. They also participate in self-growth activities at the Institute, including: values clarification sessions, group discussions, and individualized guidance seminars.

The young men are sponsored in working situations for 10 hours a week and are paid by the program for the work they do. Often the jobs involve tutoring of younger children.

*SCHOOL PREVENTION OF ADDICTION THROUGH REHABILITATION AND KNOWLEDGE (SPARK)
NYC Board of Education, Office of High Schools
110 Livingston Street, Room 235
Brooklyn, New York 11201
(212) 237-0410

This large multi-faceted program operates in all of New York City's high schools. The program varies from school to school but generally includes counseling services, Peer Leadership (Peer Counseling) training and various

alternatives activities. In-service training is offered in affective and problem-solving methods. Parent workshops are also part of the program. Despite the scope of these activities, prevention is not the major focus of SPARK; treatment and intervention are given high priority. About 25,000 students and 1,300 teachers and parents are involved in the program each year. More than half the program clients are black or Puerto Rican.

The program started in 1971 and is supported with state funds.

***TEMPE DRUG EDUCATION PROGRAM**

Tempe School District Office
3205 South Rural Road
Tempe, Arizona 85282
(602) 967-1451

This K-8 program began in 1970 as a research study comparing the effectiveness of a valuing approach to prevention with an informational approach. The study soon led to a much expanded affective program, which is now part of the regular school curriculum. The multi-dimensional prevention approach now includes DUSO, Magic Circle, Values Sharing (a strategy based on Lasswell's and Rucker's work on "universal" human needs), Values Clarification, decision making, Peer Tutoring, and drug information courses. Role Playing and Alternatives activities are also included in some school programs.

Consultation is provided by faculty from the School of Education at nearby Arizona State University. Originally funded through an ESEA Title grant, this program is now fully supported by the school district. The school population includes many Chicanos and some blacks.

***TRAINING AND DEVELOPMENT CENTER**

685 - A Street
Hayward, California 94541
(415) 881-6234

The prevention program, operating from the county school department, provides training county-wide to those who work directly with young people - teachers, counselors, probation officers and parents. The program is based on the premise that drug abuse prevention is best accomplished by increasing an individual's self-esteem and developing his affective skills. The areas of training include: factual drug information and the pharmacology of drug use; skills for enhancing self-esteem and developing self-concept; Values Clarification; counseling strategies for teachers; communication training for parents; the application of Transactional Analysis to the classroom; and a general course on drug abuse reduction through humanistic education. About 5,000 teachers participate in the program annually. Through these teachers the project indirectly serves 222,000 students including sizeable minorities of black (22%) and Spanish speaking (11%) youth.

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TRIBES

Contra Costa County Center for Human Development
2199 Norse Drive
Pleasant Hill, California 94523

The following description was taken from Substance Abuse Prevention Forum: A Compilation of Program Summaries co-sponsored by the Nebraska Commission on Drugs and NIDA:

Program TRIBES is a drug abuse prevention peer groups model for use within any grade level of the educational system, K-12. It establishes formative environments for emotional development and the prevention of behavioral problems within the classroom setting, drop-in centers, or as a peer counseling program. Essentially it addresses four basic psychological/sociological indicators that may lead to substance abuse: low self image, social isolation/alienation, unclear values, and peer influence. Utilizing long term membership peer groupings, the model builds self-esteem, provides inclusion for all members within a system, and enables students to clarify their values for responsible decision making.

THE TWELFTH NIGHT REPERTORY COMPANY
12732 Moorpark Street
Studio City, California 91604
(213) 760-2112

The TNRC is an independent theatre company founded in 1973 to promote education through the creative arts. In 1977 the Repertory Company was commissioned by Awareness House, Oakland, CA to produce a program dealing with alcohol and drug abuse and violence in the schools. The program that was developed is called "DVA (Drugs, Alcohol, Violence): Mind Pollution"

The production explores why high school students turn to substance abuse and violence through story-telling, improvisation, music, pantomime and imagery.

WEST DALLAS COMMUNITY CENTERS, INC.
212 Dallas West Shopping Center
Dallas, Texas 76212
(214) 630-6281

This program operates five youth action centers in West Dallas, a predominantly black and brown community. Youth action teams work on special projects such as parent/child workshops on the busing problem; a Christmas dinner for senior citizens; a youth employment commission; radio spots on the quality of life; among others.

Each youth action team has a planning council, composed mainly of youth who are paid for their services. Adult counselors assist the council in their planning efforts.

The program also operates believability sessions on drugs, in which they discuss issues that are important to the kids. These sessions extend beyond the youth action team when they hold similar "street corner sessions" informally with their peers.

YERBA BUENA CRISIS COUNSELING PROJECT

Yerba Buena High School
1855 Lucretia Avenue
San Jose, California 95122
(408) 279-1500

The Yerba Buena Crisis Counseling Project is a unique program that attempts to integrate community services, "to bring the collective strength of the system into a workable, unified arrangement aimed at resolving the critical problems of young people," with a minimum of red tape and a maximum of accountability.

The neighborhood high school becomes the center for the delivery of human services and houses the interagency teams (e.g., social worker, probation officer, psychiatrist, home-school liaison, specialist in parent and teacher training) essential to the implementation of the Yerba Buena concept.

The main business of the project is crisis intervention and crisis prevention (dealing with problems such as hostility/violence, truancy, drug abuse, family conflicts). Elements of the project include special tutoring programs, parent/family counseling or communication skills sessions, teacher training in better techniques for dealing with young people, and peer counseling.

YOUTH SELF-HELP

P.O. Box 1299
633 Zion Street
Nevada City, California 95959
(916) 265-5828

This primary prevention program works with a clientele ranging in age from pre-school to high school in a rural community with a known and recognized high incidence of alcohol and drug abuse among its youth. Multi-modality offerings include Magic Circle and Values Clarification, but a major focus of the program is on youth involvement/employment. "Student Helpers" are given assistance in finding jobs in the community.

SOURCES FOR EVALUATION INSTRUMENTS

Affective

General:

CSE-RBS Test Evaluations: Tests of Higher Order Cognitive, Affective, and Interpersonal Skills.

Available from: Dissemination Office
Center for the Study of Evaluation
Graduate School of Education
University of California
405 Hilgard Avenue
Los Angeles, CA 90024

Improving Educational Assessment and An Inventory of Measures of Affective Behavior. Edited by Walcott H. Beatty (Chairman, ASCD Commission on Assessment of Educational Outcomes).

Available from: Association for Supervision and Curriculum Development, NEA
1201 Sixteenth Street, N.W.
Washington, D.C. 20036

Search for Affective Instruments and Measurement Procedures. No. 4: Measurement of Affective and Humanizing Education. By Wright, Doxsey and Mathiesen.

Available from: Interstate Education Resource Service Center
1610 University Club Building
136 E. South Temple
Salt Lake City, Utah 84111

Family/Communication Skills:

Summary of Research of Effectiveness Training Programs (Revised, June 1976) and a list of tests and measurements used in evaluating effectiveness training programs by researchers and evaluators in the field.

Available from: Effectiveness Training, Inc.
531 Stevens Avenue
Solana Beach, California 92075
714/481-8121

Families of the Slums: an Exploration of Their Structure and Treatment, by Salvador Minuchin, et al. This is a lengthy report of a study involving delinquents and their families. Various analyses were conducted (e.g., verbal behavior analysis, family interaction tests, etc.) on changes in relations in families of those participating in this study. An extensive bibliography and various appendices are included. 1967.
Available from: Basic Books, Inc., New York.

Self-Esteem:

Ardyth Norem-Hebeisen
Department of Psychological Foundations
Division of Educational Psychology
College of Education
University of Minnesota
330 Burton Hall
Minneapolis, Minnesota 55455
612/376-3024

Ms. Norem-Hebeisen has worked in the primary prevention field (particularly affective education) for a number of years and has developed some self-esteem scales.

Drug Specific

Lloyd Johnston, Ph.D.
Institute for Social Research
The University of Michigan
Ann Arbor, Michigan

Dr. Johnston developed a survey questionnaire for a nationwide study of high school seniors, Monitoring the Future: A Continuing Study of the Lifestyles and Values of Youth.

Charlotte Drug Education Center
1416 E. Morehead St., Suite 201
Charlotte, North Carolina 28204
704/374-3211

This program has implemented primary prevention school-based and community-based programs and has conducted a series of evaluations of these programs.

Primary Prevention Research: A Preliminary Review of Program Impact Studies. This paper was recently completed by Eric Schaps, PYRAMID Research Director. About 35 studies were reviewed and analyzed for evidence of impact on drug-specific measures (e.g., knowledge, attitudes, and use), as well as affective measures, school performance, etc.

Available from: Bernard McColgan
PYRAMID Project Officer
NIDA Prevention Branch
11400 Rockville Pike
Rockville, MD 20852

INFORMATION SOURCES

Student Association for the Study of Hallucinogens (STASH)
118 South Bedford Street
Madison, Wisconsin 53703
(608) 251-4200

STASH is a group dedicated to the dissemination of unbiased and valid information about psychoactive drugs and their use. Materials provided include: Grassroots; Speed; Capsules; and the Journal of Psychedelic Drugs. Services include three hours of STASH library bibliographic search time; film and audiovisual evaluations; book and monograph evaluations; prevention, treatment, and rehabilitation literature.

National Coordinating Council on Drug Education (NCCDE)
1526 18th Street, N.W.
Washington, D.C. 20036

NCCDE is the largest nonprofit drug information and programming network, with more than 100 national member organizations. These member organizations, including six key federal agencies, work together toward specific goals: evaluation of drug education and information materials and films, including alcohol; identification of effective programs, and dissemination of noteworthy approaches and materials; and stimulation of interdisciplinary, local and state action on drug information, education, treatment and rehabilitation. Materials include: Annotated Drug and Alcohol Bibliographies, containing over 300 titled evaluations, with indexes, that are considered useful by NCCDE.

Drug Abuse Council (DAC)
1828 L Street, N.W.
Washington, D.C. 20036

DAC offers as an informational service a number of publications useful to those engaged in drug abuse prevention, treatment, or rehabilitation programs, and to those interested in public policy and research related to the nonmedical use of drugs.

National Association of Prevention Professionals
850 W. Barry, Suite GA
Chicago, Illinois 60657
(312) 477-0569

Prevention professionals include: affective educators working toward personal growth and skill development; mental health practitioners who provide programs such as family communications training; juvenile justice workers who provide coping skill development; drug and alcohol workers who help people with problemsolving and decisionmaking; management personnel who interact with organizational structures; medical practitioners who help people understand their bodies and biological processes; social workers

who intervene in individual and group situations that cause social problems; and attorneys who help people understand laws and the legal system.

NAPP's objectives include: informing the public and human services professionals of current prevention efforts and thinking; supporting research and evaluation efforts in prevention, and publicizing their findings; lobbying in behalf of prevention efforts; establishing retirement and pension plan systems for prevention professionals; securing professional and collegiate accreditation for prevention training experiences.

National Institute on Alcohol Abuse & Alcoholism
National Clearinghouse for Alcohol Information
P.O. Box 2345
Rockville, Maryland 20852
(301) 948-4450

NIAAA is charged with formulating and recommending national policies and goals regarding the prevention, control, and treatment of alcohol abuse and alcoholism and with developing and conducting programs and activities aimed at these goals.

The National Clearinghouse for Alcohol Information, a service of the NIAAA, has been established as a supporting function to make widely available the current knowledge on alcohol-related subjects; covering a wide range of topics, from alcohol and highway safety to physiology of alcohol, psychological studies, and occupational alcoholism programs.

Do It Now Foundation
Institute for Chemical Survival
P.O. Box 5115
Phoenix, Arizona 85010

The Do It Now Foundation is a national nonprofit organization that researches, writes, and publishes a wide variety of literature on all aspects of the drug and alcohol problem.

Materials include: Videotape recordings on drug and alcohol information; a newspaper, Drug Survival News, that includes a calendar of upcoming activities in the drug field, book and audiovisual reviews and feature articles; and information on other resource agencies.

PYRAMID
39 Quail Court, Suite 201
Walnut Creek, California 94596
(800) 227-0438 toll-free

PYRAMID is a nationwide pool of consultants specializing in program planning, community action, training, youth programs, alternatives

organizational development, and evaluation, which provides direct assistance and materials to state and local program personnel who request support service. Their objective is to involve the entire prevention community in the building of a nationwide resource development and information-sharing network. Available materials include a "Prevention Training Resource" bibliography of organizations, manuals, packages and guides.

International Association of Prevention Programs
P.O. Box 1123
Carefree, Arizona 85331
(602) 488-9084

The I.A.P.P. is designed to coordinate prevention programs, including those involved with drug, alcohol and mental health problems; provide information to help build better programs by sharing success models and problem-solving techniques; and provide a forum for the exchange of ideas on all levels, including state, regional and national seminars, workshops, and other activities designed to help define and meet program needs.

Prevention Branch, Division of Resource Development
National Institute on Drug Abuse
Alcohol, Drug Abuse, & Mental Health Administration
5600 Fishers Lane
Rockville, Maryland 20852

In the past, this group has conducted a national search for innovative prevention programs and conducted the Delphi process to define prevention activities.

The Multicultural Drug Abuse Prevention Resource Center
8443 South Crenshaw Blvd.
Inglewood, CA 90305
(213) 971-4551

MCRC is a national program designed to address the needs of minorities in the field of narcotics abuse prevention. Founded in 1975, MCRC acts as a source of information, technical assistance, counsel and program development for organizations of all kinds that are concerned with drug abuse prevention programs for ethnic minorities.

National Clearinghouse for Drug Abuse Information
5600 Fishers Lane
Rockville, Maryland 20852

The Clearinghouse, operated by the National Institute of Mental Health, is the focal point for Federal Information on drug abuse. It distributes

publications and refers specialized and technical inquiries to Federal, state, local and private information sources.

Available materials include a "Resource Book for Drug Abuse Education".

National Institute on Drug Abuse Research Monograph Series
Rockwall Building
11400 Rockville Pike
Rockville, Maryland 20852

The NIDA Research Monograph series is prepared by the Research Division of NIDA. Its primary objective is to provide critical reviews of research problem areas and techniques, the content of state-of-the-art conferences, integrative research reviews, and significant original research.

Available materials include the "Effects of Labeling the Drug-Abuser: In Inquiry" by Jay R. Williams, which includes an extensive selected bibliography section.

Center for Multicultural Awareness
2924 Columbia Pike
Arlington, Virginia 22204
(703) 979-0100

CMA is a resource center for the prevention of drug abuse among minority groups, and is a centralized source of information, technical assistance, and new ideas for the prevention of drug abuse among minority youth. Its services also include information on drug abuse prevention strategies and techniques and status of new or relevant publications.

Focus on Youth
962 Wayne Avenue, Suite 701
Silver Springs, Maryland 20910

Applied Management Sciences is under contract to the National Institute of Drug Abuse to develop a set of video cassettes and accompanying written materials that present model programs that are meeting the needs of youths in their communities. Using these films, they are developing materials that emphasize more the process by which individuals and communities have been able to develop the programs, as opposed to the programs themselves. The materials will focus on the resulting personal and social growth of the participants, both youth and adult.

Addiction Research Foundation of Ontario
33 Russell Street
Toronto, Ontario
Canada M5S2S1
(416) 595-6000

Funded by the province of Ontario, ARF conducts research, educational, clinical and service development programs throughout the province. An excellent, high-quality resource.

Drug Abuse Epidemiology Data Center
Institute of Behavioral Research
Texas Christian University
Fort Worth, Texas 76129
(817) 926-2461

Established in 1973 by the Special Action Office for Drug Abuse Prevention (SAODAP) and currently funded by the National Institute on Drug Abuse (NIDA), DAEDAC is a comprehensive, national repository of research and statistical information on the social science and epidemiologic aspects of drug abuse.

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BOOKS

Corder, Brice W.

Drug Abuse Prevention: Perspectives and Approaches for Educators.
By B. W. Corder, Ronald A. Smith, John D. Swisher. Dubuque, Iowa,
Wm. C. Brown, 1975.

Edwards, Gerald

Reaching Out: The Prevention of Drug Abuse Through Increased Human
Interaction. Preliminary Edition. New York, Holt, Rinehart & Winston,
Inc., 1972. 118 p.

This publication presents techniques and strategies in dealing directly with some of the underlying causes that lead to drug abuse in young people, through utilization of the classroom teacher as a facilitator, and provides some alternatives to drug abuse.

Messolonghites, Louisa, ed.

Alternative Pursuits for America's 3rd Century: A Resource Book on
Alternatives to Drugs. National Institute on Drug Abuse, 11400
Rockville Pike, Rockville, Maryland (20852). 1974. (For sale by the
Superintendent of Documents, U.S. Government Printing Office - price
\$2.60). 233 p.

This resource book includes sections from the increasing mass of current literature on drug prevention that support the validity of the alternatives approach. It also represents an effort to spotlight structures and strategies that represent emerging options and imaginative efforts to develop more relevant techniques for living; new trends, institutions, processes, values, lifestyles, attitudes, points of view, pursuits, programs, etc.

Fort, Joel, M. D. & Cory, Christopher, T.

American Drugstore: A (Alcohol) to V (Valium). Boston, Mass., Educational
Associates, A Division of Little, Brown and Company, 1975. 64 p.

The goal of this booklet is to present both facts and a philosophical perspective that individuals--including educators, students, politicians, and lawmakers--can use to evaluate their own drug use and to shape drug policy.

Toward A National Strategy for Primary Drug Abuse Prevention, Final Report.
Delphi II. Reproduced by the National Institute on Drug Abuse for
Special Distribution. 11400 Rockville Pike, Rockville, Maryland (20852).
July 31, 1975. 125 p.

This report (prepared under contract by E. F. Shelley & Co., Inc. 8401 Connecticut Avenue, Chevy Chase, MD 20015) describes a two-part effort by one Federal agency, to develop a national strategy for primary prevention which would be conceptually sound, yet organizationally feasible for state and local practitioners; facilitating collaboration and resource sharing among the scattered advocates of primary prevention.

Szasz, Thomas

Cereemonial Chemistry: The Ritual Persecution of Drugs, Addicts, and Pushers. Garden City, New York, Anchor Books, 1975. 218 p.

The author's aim is to 1. identify the actual occurrences that constitute our so-called drug problem; 2. identify the conceptual realm and logical class into which these phenomena belong; and 3. identify the moral and legal implications of the view that using and avoiding drugs are not matters of health and disease but matters of good and evil; that in other words, drug abuse is not a regrettable medical disease but a repudiated religious observance.

Parkinson C. Northcote

Parkinson's Law; and Other Studies in Administration. New York, New York, Ballantine Books, 1964. 140 p.

A devastatingly accurate description of how administration really works in government, business, and every human group.

Altered States of Consciousness.

Drug Abuse Council. 1828 L. Street, N.W., Washington, D.C. (20036). 207 p. \$5.00 soft cover.

A serious and comprehensive discussion of the many facets of this topic including studies in dreams, drug states, meditation, etc.

Weil, Andrew

The Natural Mind: A New Way of Looking at Drugs and the Higher Consciousness. Boston: Houghton Mifflin, 1972. 229 p.

Simon, Sidney B.

Meeting Yourself Halfway: 31 Value Clarification Strategies for Daily Living. Niles, Illinois, Argus Communications, 1974. 102 p.

This title seeks your personal response through strategies developed and refined over many years of research. The author has arranged exercises in self-discovery which reveal the simple, vital, dramatic truth: What we do is what we are. How we act tells us what we really value.

Simon, Sidney B., et al.

Values Clarification: A Handbook of Practical Strategies for Teachers and Students. New York, New York. Hart, 1972. 397 p.

Designed to engage students and teachers in the active formulation and examination of values, this book is unique in content and format. It does not teach a particular set of values. The goal is to involve students in practical experiences, making them aware of their own feelings, their own ideas, their own beliefs, so that the choices and decisions they make are conscious and deliberate, based on their own value systems.

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Benson, Herbert
The Relaxation Response. New York, New York. Wm. Morrow, 1975. 158 p.

A simple meditative technique that will unlock your hidden assets and help you relieve inner tensions, deal more effectively with stress, lower blood pressure, and improve your physical and emotional health.

Tart, Charles T.
States of Consciousness. New York, New York. E. P. Dutton, 1975. 305 p.

This book presents a theory based on the latest scientific research in this important new field. In addition to dreams and hypnosis, the author covers meditation, drug states, emotional states, and other altered states of consciousness.

Smith, Adam.
Powers of Mind. New York, New York. Ballantine, 1975. 419 p.

This title focuses on the various realms of consciousness expansion from biofeedback--the magic of alpha waves to I Ching to TM, Zen and talks with Carlos Castaneda, Baba Ram Dass, Swami Muktananda and John Lilly.

Lewis, Howard R.
Growth Games: How to Tune in Yourself, Your Family, Your Friends. New York, New York. Bantam, 1971. 301 p.

This book seeks to bring you practical benefits of humanistic psychology, widely called the "human potential movement", "sensitivity training" and the "encounter movement". This exciting new field aims to help you reach your full growth in terms of your senses and emotions. It embraces a wide range of approaches to resolving problems in personal functioning and interpersonal relations and includes such frequently neglected areas as body states, sensory awareness and consciousness expansion.

Brecher, Edward M.
Licit and Illicit Drugs. Boston, Mass., Little Brown, 1972. 623 p.

The Consumers Union Report on narcotics, stimulants, depressants, inhalants, hallucinogens, and marijuana--including caffeine, nicotine, and alcohol. This book includes many descriptions of drug effects as well as a section on policy issues and recommendations. This title is highly recommended.

The Bread Game. A modern classic of sorts, this "how to" text on foundation fund raising offers basic information on everything from strategy to recordkeeping. Neat, compact, written for non-establishment types who need establishment money, but equally appropriate for more conventional folk. Order from Glide Publications, 330 Ellis Street, San Francisco, California 94102. (\$2.95 plus \$.50 postage).

Catalog of Federal Domestic Assistance. A map of the territory--the tip of the iceberg--the horn on the rhinoceros. The catalog is 800 pages long, looseleaf-bound, and lists all federal programs. It's a must for people interested in federal funds, but don't expect any help here in the mysteries of actually getting the money. Order from Superintendent of Documents, U.S. Government Printing Office, Washington, D. C. 20402. (\$17.00 per year).

The Foundation Directory. This is the granddaddy resource book on major foundations in the U.S. More than 2500 foundations with assets of over \$500,000 are included, and all the pertinent information for an initial contact is part of each listing. Continually updated and available from Columbia University Press, 136 South Broadway, Irvington-on-Hudson, New York 10533 (\$30.00).

How to Get Money for Arts and Humanities, Drug and Alcohol Abuse, and Health. A paperback guide to foundations and their primary interests, similar to the Foundation Directory, but handier and more convenient to use--also less comprehensive. Foundations are listed by areas of interest and geographical region. Order from Human Resources Network, 2010 Chancellor Street, Philadelphia, Pennsylvania 19103. (\$5.95).

Balancing Head and Heart: Sensible Ideas for the Prevention of Drug and Alcohol Abuse. Pacific Institute for Research and Evaluation. 39 Quail Court, Suite 201, Walnut Creek, CA 94596 Prevention Materials Institute

Balancing Head and Heart is a down-to-earth package of materials combining a theoretical basis for choosing new approaches to substance abuse with a realistic, pragmatic guide for implementing specific strategies.

The package includes a summary booklet; a series of seven videotapes; three book-length manuals (Prevention in Perspective; Eleven Strategies; Implementation and Resources); and a variety of workshop formats (Operation Workshop - 1-2 days; Planning Workshops - 3-5 days; and Trainers' Workshops - 5-8 days).

Proposal Writer's Swipe File. Not as nasty as it sounds. A dozen proposals of various kinds, all aimed at foundations, are reprinted in their entirety. The names have been changed to protect everyone involved. The proposals are first-rate, exemplary models of style, content, and general savvy. Available from Taft Products, Inc., 1000 Vermont Avenue, Northwest, Suite 600, Washington, D.C. 20005. (\$5.00)

Techniques of Fund Raising. Primarily for the business world, this expensive book answers hundreds of questions people engaged in soliciting money must ask themselves. What is the best kind of approach to use? What is the best time to ask for gifts? How much do I ask for? What do I have to offer the donor? The author advises against trying for foundation grants. He says look to local resources. Author: Daniel Lynn Conrad. Order from Lyle Stuart, Inc., Secaucus, New Jersey 07094. (\$25.00)

Messolonghites, Louisa, ed.

Primary Prevention in Drug Abuse: An Annotated Guide to the Literature.
National Institute on Drug Abuse, 5600 Fishers Lane, Rockville, MD 20852.
1977. (Available through the National Clearinghouse for Drug Abuse
Information.) 205 pages.

An extensive guide to the growing body of literature in the field of
drug abuse prevention. A must for any primary prevention resource
collection.

Canfield, Jack and Wells, Harold C.

100 Ways to Enhance Self-Concept in the Classroom: A Handbook for Teachers
and Parents. Prentice-Hall, Inc., Englewood Cliffs, New Jersey. 1976. 253 p.

The dedication of the book says it all: "... to teachers, parents and
everyone else in the world concerned with helping children develop a true
sense of themselves as lovable and capable human beings." A delightful,
fun book and very usable.

Flanagan, Joan.

The Grass Roots Fundraising Book: How to Raise Money in Your Community.
Swallow Press, Inc., Chicago, Illinois. 1977. 219 p.

Based on the premise that the best source of funding for an organization
is its own constituents, this book focuses on ways for a community serving
agency to move towards financial self-sufficiency. It underlines how
community organizing/participation is an integral part of grass roots
fundraising.

Resnick, Hank.

It Starts With People. National Institute on Drug Abuse, 5600 Fishers
Lane, Rockville, MD. 20852. Spring 1978. (Available through the National
Clearinghouse for Drug Abuse Information.)

This book is one of the pring materials developed for the National Drug
Abuse Prevention Campaign of 1978. It highlights school and community
prevention programs, overviewing new developments and promising prevention
strategies.

SUGGESTED READINGS IN EVALUATION

Abrams, Annette; Garfield, Emily F. and Swisher, John D. (editors). Accountability in Drug Education: A Model for Evaluation. Washington, D.C.: The Drug Abuse Council, Inc., 1973.

A good evaluation primer that is specifically directed at evaluation of drug abuse prevention programs. Inexpensive. Easy to read and use. Covers the entire evaluation process and provides a number of useful references. Excellent for beginners.

Blanton, Judith and Alley, Sam. Program Development: A Manual for Organizational Self-Study. Duplicated manuscript. Washington, D.C.: National Institute of Mental Health, 1975.

The very best resource we have seen for process (formative) evaluation--that is, for systematic, rational program development. Extremely clear and easy to read. Not geared directly to evaluation of drug abuse programs, but easily adapted. Anyone can use this.

Bills, Dr. Robert E. A System for Assessing Affectivity. University of Alabama, 1975.

A set of extensively tested instruments, age-graded from K-12, for measuring a variety of drug-related affective variables, including self-concept, attitudes toward school, parent's attitudes toward school. Good reliability, convenient computer scoring available. Measures both individual and institutional characteristics.

Campbell, Donald T. and Stanley, Julian C. Experimental and Quasi-Experimental Designs for Research. Chicago: Rand McNally & Company, 1963.

The classic analysis of scientific, experimental research designs. Brief, dense, technical, extremely well organized--this is not for beginners, but a must for those conducting outcome (impact, summative) evaluations.

Evaluation: A Forum for Human Service Decision-Makers. (Quarterly Magazine) Program Evaluation Project, 501 Park Avenue South, Minneapolis, Minnesota 55415.

The Behavior Today of the professional evaluation field. Readable, topical, very well done. Combines technical and human interest angles.

Instructional Objectives Exchange, P.O. Box 24095, Los Angeles, CA 90024

An excellent source of questionnaires and other data collection instruments for measuring drug-related attitudes and behavior patterns, affective characteristics such as self-concept, attitudes toward school, etc. Write them describing your needs.

Popham, W. James. Educational Evaluation. Englewood Cliffs, New Jersey: Prentice-Hall, Inc. 1975.

The first fifty pages are an excellent survey and history of the general field of program evaluation. Several chapters directly address the problem of evaluating affective programs. Well written. Humorous. Probably not for beginners.

Struening, Elmer L. & Guttentag, Marcia (editors). Handbook of Evaluation Research, Vols. 1 & 2. Beverly Hills, CA: Sage Publications. (address: 275 South Beverly Drive, Beverly Hills, CA 90212).

The current "bible" of evaluation--a \$40,000 compendium of research and theoretical articles. For the serious student of evaluation research.

Suchman, Edward A. Evaluation Research: Principles and Practice in Public Service and Social Action Programs. New York: Russell Sage Foundation, 1967.

A good discussion of basic issues in evaluation research, with practical suggestions as well. Technical. A bit dry. Not for beginners.

SOURCES FOR EVALUATION RESEARCH IN PRIMARY PREVENTION

Addictions Prevention Laboratory
Penn State University
1001 University Drive
State College, PA 96801
814/237-1427

John Swisher, Ph.D., Director
(Besides training teachers in affective prevention strategies,
they also evaluate primary prevention programs.)

Addiction Research Foundation
33 Russell Street
Toronto, Ontario
CANADA
Michael Goodstadt, Evaluation Researcher

Educational Programs That Work

A catalog of exemplary educational programs prepared for the
U. S. Office of Education, by the Far West Laboratory for Edu-
cational Research and Development, San Francisco, CA. Fall, 1976.

Educational Research Council of America
Rockefeller Bldg.
614 W. Superior Ave.
Cleveland, Ohio 44153
(They develop affective prevention curricula and have evaluated
some of them.)

Human Development Training Institute
7574 University Avenue
La Mesa, CA 92041
714/462-8230
(These are the Magic Circle folks.)

National Humanistic Education Center (VC)
Upper Joy, New York 12987
(These are the values clarification folks.)

"Primary Prevention: Opportunities & Problems"
by: Bernard L. Bloom
Department of Psychology
University of Colorado
Boulder, CO 80309

Invited address presented at ADAMHA Annual Conference of the State
and Territorial Alcohol, Drug Abuse, and Mental Health Authorities,
October 26, 1976, Denver, CO.

PERIODICALS

British Journal of Addiction to Alcohol and Other Drugs

Published quarterly for \$30.00 per year by Longman Group, Ltd., Journals Division, 43-55 Annadale St., Edinburgh, EH7, Scotland

The journal publishes articles that are generally of a scholarly or professional character. It is one of the oldest periodicals in this field and was first published in 1884 as the Proceedings of the Society for the Study of Addiction to Alcohol and Other Drugs. It adopted its current name in 1947. Although its articles have a decidedly English focus, the information they contain should be of use in the United States as well.

Bulletin on Narcotics

Published quarterly for \$10.00 per year by Division of Narcotic Drugs, United Nations, Room LX-2300, New York, New York 10017.

This publication is a multidisciplinary journal which attempts to cover all aspects of national/international drug control as well as the work of responsible, international groups in this field. The articles are scholarly and, as is the intention of the journal's editor, tend to describe original research though purely descriptive reports are occasionally accepted. Each issue contains a bibliography which alerts readers to current publications pertinent to people working in the drug abuse field. It is published in both English and French. Selected articles are subsequently published in Spanish and Russian; a summary of each volume is issued yearly in Chinese.

Community Mental Health Journal

Published quarterly for \$15.00 per year by Human Sciences Press, 72 Fifth Avenue, New York, New York 10011.

This journal is devoted to emerging approaches in mental health research and theory as they relate to the community. Their definition of mental health is that it is "more or less congruent with the general concept of social wellbeing." The journal features articles on the organization and management of community mental health services, book reviews, and film reviews.

Drugs and Drug Abuse Education Newsletter

Published monthly for \$33.00 per year by Scope Publication, Inc., 1132 National Press Building, Washington, D.C., 20004.

The format of this periodical is that of a "news brief". It presents information in such areas as legislative developments, book reviews, and employment notes. It should be a useful tool for keeping abreast of current developments in the drug abuse field.

Drug Forum--The Journal of Human Ideas

Published quarterly for \$40.00 per year by Baywood Publishing Co., 120 Maine St., Farmingdale, New York 11735.

The intention of this journal is to disseminate information on drug abuse from many different points of view. Its primary concern is dealing with the practical solutions and alternatives in changing drug oriented ways of living. The specific areas its articles address are: description and assessment of drug treatment modalities; drug problems; factors concerning drug use and misuse; and the legislative and legal issues that affect both individual and community life.

The DSA Newsletter

Published 6 times a year by the State Department of Health, Substance Abuse Branch, 714 P Street, Room 592, Sacramento, Ca., 95814,

Drug news in California.

Essence of Adolescence

Published monthly except August for \$7.00 per year by Fred Streit, 168 Woodbridge Avenue, Highland Park, New Jersey 08904.

Abstracts of current periodical literature and research on adolescent psychology and sociology.

The Foundation News

Published by the Council on Foundations, Box 783, Old Chelsea Station, New York, New York, 10001, for \$20.00 per year.

Up-to-the-minute information on which foundations are giving how much to whom and how you can get some for yourself.

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Grantsmanship Center News

Published 8 times a year for \$15.00 per year by Grantsmanship Center, 1015 W. Olympic Blvd., Los Angeles, CA 90015.

Comprehensive overview of trends on Federal, state and local levels. Includes new publications, grants management and summary of federal grants programs.

Grassroots

Published yearly with monthly supplements for \$80.00 per year by the Student Association for the Study of Hallucinogens, Inc., 118 S. Bedford, Madison, Wisc. 53703

A useful publication for the professional or layman working in the field of drug abuse. The subscriber receives a loose-leaf binder with preprinted indexed dividers listing categories such as "Drug Education", "Street Drugs," and "Hallucinogens." Within each category are articles classified under a particular subject heading. Each month throughout the year, additional articles are mailed for inclusion within a specified category. Many of the articles are reprints from other journals, but there are a number of original contributions. An added benefit included in the subscription price is the "Grassroots Directory of Drug Information and Treatment Organizations", organized by states and updated throughout the year.

International Journal of the Addictions

Published quarterly for \$65.00 per year by Marcel Dekker, Inc. 270 Madison Ave., New York, New York, 10016.

Articles are geared to the professional working in the drug abuse field. The journal usually reports results of original research by trained specialists. The authors make extensive use of sophisticated statistical techniques and use charts, graphs and tables throughout.

The Journal

Published monthly for \$16.00 per year by the Addiction Research Foundation, Marketing Services, 33 Russell St., Toronto, Ontario, Canada. M5S2S1.

Canadian drug journal which includes United States and foreign news. Reports on research, treatment, drug effects, new programs, books, films, and conferences.

Journal of Drug Education

Published quarterly for \$35.00 per year by Baywood Publishing Co.,
43 Central Drive, Farmingdale, New York 11735.

This journal provides a medium for the discussion of all aspects of the drug abuse problem. Its principle areas of investigation include the role of the educator, innovations in in-school and community drug education programs, drug research information, and drug education as applied to business and industry. Its avowed purpose is to help communities to develop programs that would bring about a reversal in the drug abuse problem among youths and adults. The major criterion used by the editors in accepting papers is the applicability of their contents to practical problems encountered in implementing school and community drug education programs.

Journal of Drug Issues

Published quarterly for \$25.00 per year by Journal of Drug Issues, P.O. Box 4021, Tallahassee, Fla., 32303.

This journal's stated purpose is to provide a forum for open, honest, and rational presentation of drug issues. The articles appeal to a wide audience, probably because the editor holds to his promise of publishing articles that present ideas of fresh and honest vigor.

Journal of Psychedelic Drugs

Published quarterly for \$30.00 per year by Haight-Ashbury Free Medical Clinic and Student Association for the Study of Hallucinogens, Inc.,
118 S. Bedford, St., Madison, Wisc. 53703.

Articles relevant to all aspects of psychoactive drugs.

Prevention Resource Bulletin (new name pending)

Published free of charge by Pyramid, 39 Quail Court, Suite 201, Walnut Creek, California 94596.

Similar to the NYAP newsletter, though focused specifically on primary prevention programs.

Resources for Youth

Published quarterly by the National Committee on Resources for Youth, Inc., 36 West 44th Street, New York, New York 10036. Free.

Highlights models of programs in which youth assume rewarding and responsible roles. Reviews the trends and media of youth participation.

U. S. Journal of Drug and Alcohol Dependence

Published monthly for \$24 a year by above at 7541 Biscayne Blvd., Miami, Fla. 33138

Information on Federal legislation, funding, regulations and programming news; advances in research, treatment, preventive education, enforcement policies and social policy trends. Keeps abreast of development in alcoholism and drug abuse as they impact on the U.S. addictions scene.

Washington Drug Review

Published monthly for \$33.00 per year by Washington Drug Review, Inc. 1016 National Press Bldg., Washington. D.C. 20045.

Tips on solving drug related problems; latest research findings, educational techniques, politics and drugs, legislation, law enforcement, what's coming from Washington.

Youth Alternatives

Published for \$20.00 per year by the National Youth Alternatives Project, 1830 Connecticut Avenue, Northwest, Washington, D.C. 20009.

The NYAP has an inside track--and, it's important to note, a heavily political perspective--on the funding and youth service programs. Their newsletter contains useful gossip and sniffs out new funding trends. Available from National Youth Alternatives Project, 1830 Connecticut Avenue, Northwest, Washington, D.C. 20009.

PAMPHLETS

1. Dohner, V. Alton
Alternatives to Drugs--A New Approach to Drug Education.
Reprinted with permission of Baywood Publ. Co., Inc. by the
National Clearinghouse for Drug Abuse Information. Originally
appeared in J. Drug Ed., Vol. 2 (1), pp. 3-22, March, 1972.
22 p.
2. Cohen, Allan Y.
Alternatives to Drug Abuse: Steps Toward Prevention
National Clearinghouse for Drug Abuse Information, 5600 Fishers Lane,
Rockville, MD 20852
3. Drug Abuse Directory. National Coordinating Council on Drug Abuse
Education and Information, P.O. Box 19400, Washington, D.C.
Single copy \$1.00

A directory listing materials available from the 70 National
Organizations that comprise the Council.
4. Effective Coordination of Drug Abuse Programs: A Guide to
Community Action.
A community action manual drafted for the National Institute on Drug
Abuse, 11400 Rockville Pike, Rockville, Maryland 20852. The purpose
of the manual was to develop guidelines to help communities organize
effective and coordinated communitywide drug abuse efforts, based on
a field survey of what works and what does not work for a
representative sample of drug abuse coordinating councils across the
country. A copy of this manual can be obtained through the National
Clearinghouse, FREE.
5. Grantsmanship is Never Having to Say You're Broke. National Drug
Abuse Training Center, Rosslyn Hotel Building, 1500 Wilson Boulevard,
Arlington, Virginia, 22209.
39 p.

This pamphlet was adapted from a series of articles published in the
National Drug Abuse Training Center's Newsletter-- "Altered State".
The articles were written as a general primer for NDATC trainees who
were participants in the U.S. Office of Education's "Help Communities
Help Themselves" program.
6. Guidelines for Drug Abuse Prevention Education.
For sale by the Superintendent of Documents, U.S. Government
Printing Office, Washington, D.C. 20402
Single copy \$.75.

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7. The Juvenile Justice and Delinquency Prevention Act: Some Guides to Impacting Its Implementation Locally. A companion to the Title XX pamphlet described below, this one deals with funds from the Law Enforcement Assistance Administration (see next section). Order from National Youth Alternatives Project, 1830 Connecticut Avenue, Northwest, Washington, D.C. 20009 (\$2.00)

8. A Minnesota Primer on the Prevention of Chemical Use Problems Chemical Dependency Programs Division, Department of Public Welfare, Centennial Building, 658 Cedar Street, St. Paul, Minnesota, 55155 64 p.

9. The Rap Kit: Resources for Alternative Pursuits. National Clearinghouse on Drug Abuse Information, 11400 Rockville Pike, Rockville, Maryland (20852). 1976

An experimental packet of materials to help drug prevention groups develop community programs and processes through creative use of local resources. The kit provides techniques for team building and group organization development toward the goal of developing creative alternatives for youth.

10. Stalking the Large Green Grant. Similar to "The Bread Game", but more hardnosed politically and less detailed. Useful insights into the grantsmanship hustle tinged with healthy skepticism. Published by National Youth Alternatives Project, 1830 Connecticut Avenue, Northwest, Washington, D.C. 20009. (\$2.00)

11. Substance Abuse Prevention. Office of Substance Abuse Services, Michigan Department of Public Health, P.O. Box 30035, 3500 North Logan Street, Lansing, Michigan, 48909. 42 p.

12. Take the Time. Wisconsin Clearinghouse for Alcohol and Other Drug Information, 420 N. Lake St., Madison, WI 53706
Single copy

An alternatives idea booklet for everyone!

13. Using Title XX to Serve Children and Youth. Tips for accessing the important, and highly flexible, funds created by Title XX of the Social Services Act. Distributed by Office of Child Development, 330 C Street, Southwest, HEW South Building, Room G-311, Washington, D.C. 20201. (Free)

1978 National Drug Abuse Prevention Campaign Pamphlets:

Drug Abuse Prevention for Your Family
Drug Abuse Prevention for You and Your Friends
Drug Abuse Prevention for Your Community
Drug Abuse Prevention for Older Americans
Drug Abuse Prevention for the Media
Drug Abuse Prevention (general audience)
La Prevencion del Abuso de Drogas (Spanish)

National Clearinghouse for Drug Abuse Information, 5600 Fishers Lane,
Rockville, MD 20852

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MODULE VIII: CLOSURE AND EVALUATION

PERSPECTIVE

This module attempts to provide closure and direction for participants. They are directed to complete the evaluation forms and posttests. They are also directed to the additional training courses offered by NDAC and RSCs.

CONTENTS

Overview of Module VIII (5 minutes)

Review of Modules I through VII (10 minutes)

Posttest (30 minutes)

Closure: Certificates and Departure (10 minutes)

TOTAL TIME: 1 hour

OBJECTIVES

1. To determine if participants' original goals and questions were fulfilled.
2. To recognize the additional training courses offered by the National Training System.

PROFESSIONAL STRENGTHS WORKSHEET

1. Background and Training:

List the three most significant experiences which have prepared you for your current position.

2. Task Oriented Skills

What are the job related areas in which you are most proficient?

3. People Oriented Skills

Name three ways in which you work well with other people.

4. Beyond the Call of Duty

What are some strengths you bring out in response to crisis or stress situations?

5. Recognition

Name three people who give you positive feedback about your strengths in your present position.

6. Achievement

Briefly describe some specific accomplishment you are proud of in your present career.

7. What You Take With You

What experiences, information, views have you gained from this course?

ACTION PLAN

STEP 1.

- a. As a result of your attending this course clearly identify and describe the change you now want to make.

- b. Clearly define the reason you want to make the change.

STEP 2.

- a. Identify whether you anticipate resistance to the change(s)

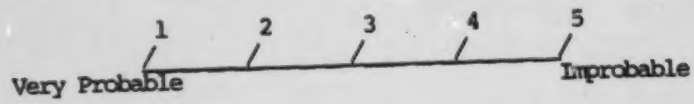
- b. Identify where the resistance will come from and the underlying reason. (Either within yourself or outside yourself.)

STEP 3

- a. Identify strategies you might employ to overcome resistance.

STEP 4.

- a. Identify the degree of success you expect to have in accomplishing the desired change. (Circle one.)



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EVALUATION AND TESTS

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Please sign the statement below:

I verify that I attended all scheduled sessions of the course.

Participant Signature

Trainer/Facilitator Signature

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REGISTRATION FORM
DRUGS IN PERSPECTIVE COURSE
PARTICIPANT INFORMATION FORM

Please complete all items:

1. Name _____
 Last First Middle
2. Organization _____
 Employer/Agency or Institution in which you work
3. A. Address (work) _____
 No. Street City State/Zip
- B. Address (home) _____
 No. Street City State/Zip
4. Work Phone () _____ Home Phone () _____
 Area Area
5. Your Position Title _____
6. Years in Occupation _____
7. Formal Education (check one)
 Less than High School _____ High School or GED _____ Some College _____
 Bachelor's Degree _____ Master's Degree _____ Doctorate _____
 Major Field _____
8. Date of Birth _____
9. Training Dates _____ / _____ / _____
 Month(s) Date(s) Year
10. Training Site _____
 Meeting Site City State
11. Training Sponsor _____
 State/Local Agency
12. Trainers for this Course _____
 Lead Trainer/Co-Trainer

 Co-Trainer/Facilitator

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PRETRAINING QUESTIONNAIRE
DRUG & TREATMENT PROGRAM RATING SHEET

Rank these substances according to which substance you would most prefer information about. That substance you would most prefer information about should get a rating of (1). That substance which you would prefer the least information about should get a rating of (13). Do not duplicate any numbers.

Alcohol	()	Mescaline	()
Amphetamines	()	Methadone	()
Cocaine	()	Methaqualone	()
DOM (STP)	()	PCP	()
Heroin	()	Psilocybin	()
Inhalants	()	Tranquiliizers	()
Marihuana	()	Other	()

Rank these treatment programs according to which program you would most prefer information about. That treatment program should get a rating of (1). That treatment program which you would prefer the least information about should get a rating of (12). Do not duplicate any numbers.

Crisis Intervention	()	Multi-Modality Treatment	()
Group Movements	()	Narcotic Antagonists	()
Mental Health (Inpatient)	()	Occupational Groups	()
Mental Health (Outpatient)	()	Religious Groups	()
Maintenance - Methadone	()	Self-Help Groups	()
Maintenance - Heroin	()	Therapeutic Community	()
		Other	()

DRUGS IN PERSPECTIVE

Form A

Note: For the following items there may be more than one correct answer.

1. Which of the following is not a major perspective for considering substance use and abuse
 - a. moral-legal
 - b. psycho-social
 - c. socio-cultural
 - d. physical-psychological
 - e. public health-disease
2. The spectrum of drug use includes
 - a. socio-pathological use
 - b. regular use
 - c. experimental use
 - d. all of the above
 - e. none of the above
3. In the context of substance abuse "tolerance" refers to
 - a. parental attitudes towards substance use in their community or by their children
 - b. a user's ability to take heavy doses of drugs
 - c. an individual's ability to mix use of narcotics, depressants, and stimulants at the same time
 - d. a change in the dosage of a given drug required to produce its effects
 - e. an individual's orientation toward drugs
4. The classification hallucinogen includes
 - a. LSD-25
 - b. peyote
 - c. cocaine
 - d. naloxone
 - e. paraquat
5. The causes of substance use and abuse from a socio-cultural perspective do not include
 - a. breakdown of family unit
 - b. economic imbalance
 - c. influence of media
 - d. communist strategies to take over the world
 - e. rapid technologic change
6. The most frequently abused group of controlled substances in America today are the
 - a. hallucinogens
 - b. stimulants
 - c. sedative-hypnotics
 - d. depressants
 - e. narcotics

7. In the context of substance (drug) abuse, antagonism can be described as
- the combined effect of two drugs being less than the effects of the drugs acting separately
 - the joint effect of two drugs being greater than the sum of their individual effects
 - a drug that produces negative side effects when taken with another drug
 - any drug that causes negative side effects; it is antagonistic to the individual taking the drug
 - any two (or more) drugs that cause the development of cross-tolerance
8. The major stages leading to addiction, outlined by Van Dijk, allows for
- stopping practices at each stage and returning to earlier stages of drug use
 - maintenance of family support systems
 - psychological and physical differences in addiction
 - the utilization of coercive motivation
 - the utilization of supportive therapies
9. Definitions of "drug abuse" are
- developmental and psychological in nature
 - objective with social influences
 - defined appropriately
 - legal in nature
 - often ill-defined and value-laden
10. One of the principle underlying the alcoholics anonymous approach to treatment of alcoholism is that the use of other drugs guarantees resumption of drinking

T

F

11. The 1906 Federal Pure Food and Drug Act

- required manufacturers to label all products containing opium, morphine, and heroin.
- attempted to establish standards for manufacturers of tobacco and liquor
- appointed the first commission to attempt to classify drugs
- attempted to control the use and distribution of cocaine
- required physicians to account for morphine use

12. One of the early phases of an alcoholic's movement toward recovery is characterized by feeling so good he begins to doubt he needs to continue treatment

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13. All of the following statements accurately describe treatment by methadone maintenance except:

- Methadone is a narcotic antagonist
- it is of relatively low cost
- the majority of methadone patients come from minority populations
- there are numerous side effects (constipation, weight gain, numbness, and hallucinations)
- methadone patients sometimes abuse other drugs such as alcohol, barbiturates, and cocaine while undergoing treatment

14. Which of the following is not a commonality of alcohol and heroin
- a. when each substance first enters the body natural functioning of cells is upset
 - b. sudden withdrawal from each results in grand mal seizures and possibly death
 - c. effects of alcoholism and heroin addiction are felt by the user, families, employers and society as a whole
 - d. both substances depress the functions of the central nervous system
 - e. both can be used regularly without necessarily leading to addiction
15. Psychological dependence is characterized by
- a. onset of withdrawal syndrome after cessation of drug use
 - b. compulsive drug-taking behavior
 - c. need for continuous administration of a drug to avoid emotional and mental discomfort
 - d. use of drug without regard for its effect
 - e. loss of ability to distinguish right and wrong
16. Research findings and clinical work have
- a. shown simple and basic causes which initiate the process of pathological use of drugs
 - b. been minimal in the field of drug abuse
 - c. isolated and validated specific common factors related to drug abuse
 - d. shown one simple cause (dependency) of drug abuse
 - e. made it clear that a complexity of causes and conditions give rise to the drug-taking process
17. Early public awareness regarding marihuana (circa 1930s) was:
- a. molded by several scientific studies that presented evidence to substantiate the belief that it was a dangerous mind-altering and narcotic substance
 - b. hindered by its relatively benign effects
 - c. characterized by the relative absence of research causing much speculation about its nature
 - d. responsible for the adoption of the Marihuana Tax Act of 1937
 - e. heightened by the rising frequency of marihuana-related crimes, especially rape
18. One effect of barbiturate use on psychomotor functioning is
- a. incoordination
 - b. euphoria
 - c. increased visual discrimination
 - d. loss of memory
 - e. increased visual discrimination
19. The characteristics of psychological dependence vary according to the drug used as well as the user

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20. One of the possible consequences of chronic marihuana use is

- a. physiological dependence
- b. psychological dependence
- c. an overwhelming desire to loot
- d. cirrohsis of the liver
- e. bronchitis

21. The factors which are the primary in the current popularity of phencyclidine are

- a. low price
- b. association with smoking marihuana
- c. the chemical purity of the substance
- d. high availability
- e. lack of any known adverse effects of use

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FORM B

1. One of the differences between heroin and alcohol is that continued use of pure heroin unlike alcohol causes little short or long term degeneration of body organs or tissues.

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2. Consequences of continued substance abuse may include
 - a. lack of individual freedom from the drug
 - b. social dysfunction
 - c. toxic psychosis
 - d. interference with natural ability of body to react disease
 - e. all of the above
3. Darvon, codeine, and methadone are examples of substances classified as
 - a. depressants
 - b. hallucinogens
 - c. stimulants
 - d. opiates
 - e. sedative-hypnotics
4. An example of an antagonist is:
 - a. methadone
 - b. milk
 - c. antabuse
 - d. marihuana
 - e. LAAM
5. Prevention based on the medical or public health model
 - a. relies on the containment of known users
 - b. rests heavily on punishment
 - c. emphasizes use or non-use as human behavior
 - d. stresses the social context of behavior
 - e. relies on the family
6. Identify the inaccurate statement:
 - a. Families provide role models
 - b. Peer groups aid in learning to relate to a variety of people outside of the family.
 - c. School provides the knowledge and skills needed for use in the world of work, family, and community.
 - d. The role of communities is difficult to define.
 - e. Dissemination of educational materials on drug abuse has been discriminate and applicable.
7. The existence of certain risk factors which can predict the onset of alcoholism is a criterion for labelling it a disease.

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8. The causes of substance use and abuse may include
- Erosion of confidence in government
 - Hereditary or genetic factors
 - Desire for an intense spiritual experience
 - a and b
 - All of the above
9. Identify the inaccurate statement:
- In 1961 and 1962, California and New York established statewide treatment programs.
 - After the passage of the Harrison Narcotic Act of 1914, the Federal Government encouraged large cities to establish temporary clinics for maintenance and gradual withdrawal of dependent users of opiates.
 - The explosion of drug addiction in the urban slums in the 1950s and 1960s led to a search for more effective treatment methods.
 - The Federal clinics at Lexington and Fort Worth were the only major opiate treatment facilities in the country until 1952.
 - In 1964, Nyswander and Dole began an experimental drug maintenance program in New York using group psychotherapy.
10. The therapeutic community
- has a high (75% the first month) drop-out rate.
 - is more efficient than other drug free methods.
 - mainly deals with the physical causes of addiction.
 - is less expensive to operate than drug free out patient programs.
 - is cost effective when analyzing its success rate.
11. Identify the vicious circle described by Van Dijk.
- Pharmacological
 - Ego Weakening
 - Social
 - a and b
 - all of the above
12. Marihuana, LSD, and STP are used as
- painkillers
 - intensifiers
 - polydrug
 - stimulants
 - depressants
13. Which one of the substances below is a hallucinogen?
- cocaine
 - methadone
 - amphetamine
 - PCP
 - heroin
14. The ingestion of alcohol causes a
- lowered tension level
 - heightening of the tension level
 - lowered tension level followed by a raised tension level
 - heightened tension level followed by a lowered tension level
 - no effect on the individual's tension level

15. Most drug laws in the U.S. prior to the late 1960s
- recognized drug abuse as a medical problem.
 - were directed at punishing both the supplier and user of drugs
 - were enacted after clinical research had proven the danger of certain drugs
 - were successful in eliminating illicit drug use
 - concerned substances used by only a minority of the society
16. Motivating factors for using psychoactive substances may include
- relief of pain
 - emotional or intellectual insight
 - avoidance of decision making
 - rebellion against disliked laws and social conversations
 - all of the above
17. Which of the following is a modality applicable in treatment of narcotic dependence
- therapeutic communities
 - inpatient
 - drug free outpatient
 - methadone maintenance
 - all of the above
18. The use of methadone for the treatment of heroin addiction was initiated primarily because
- Methadone unlike other narcotics has no debilitating side effects
 - The Federal government would be able to register and control all addicts in the country
 - Methadone alleviates the craving for heroin and thus allows the addict to become involved in a treatment regimen
 - Clients maintained on methadone will experience no withdrawal syndrome upon discontinuation of the drug
 - Methadone has the effect of heightening the clients awareness of the importance of social responsibility
19. One physiological effect of opioids
- placebo effect
 - need to commit crimes in order to support the "habit"
 - cross tolerance to other opioids
 - delirium tremens
 - central nervous system hyperexcitability
20. One result of prohibitionist tactics with regard to drug abuse is
- the acceptance of a concept of controlled use
 - the association of certain drugs with hated sub-groups in the society
 - the designation of user and supplier as victims
 - particular drugs become the subject of intensive research
 - the use of drugs is virtually eliminated
21. Physiological dependence is the inevitable result of the pharmacologic actions of certain substances given sufficient dosages and duration of use

TEST FORM A

Name or I.D. Code No. _____
 Course _____
 Date _____
 Instructor _____
 Location _____

Check one: Pretest _____
 Posttest _____

Darken with a pen or pencil the letter that best answers the question

- | | | | | | | | | | | | |
|-----|---|---|---|---|---|-----|---|---|---|---|---|
| 1. | A | B | C | D | E | 16. | A | B | C | D | E |
| 2. | A | B | C | D | E | 17. | A | B | C | D | E |
| 3. | A | B | C | D | E | 18. | A | B | C | D | E |
| 4. | A | B | C | D | E | 19. | T | F | | | |
| 5. | A | B | C | D | E | 20. | A | B | C | D | E |
| 6. | A | B | C | D | E | 21. | A | B | C | D | E |
| 7. | A | B | C | D | E | | | | | | |
| 8. | A | B | C | D | E | | | | | | |
| 9. | A | B | C | D | E | | | | | | |
| 10. | T | F | | | | | | | | | |
| 11. | A | B | C | D | E | | | | | | |
| 12. | T | F | | | | | | | | | |
| 13. | A | B | C | D | E | | | | | | |
| 14. | A | B | C | D | E | | | | | | |
| 15. | A | B | C | D | E | | | | | | |

TEST FORM B

Name or I.D. Code No. _____
 Course _____
 Date _____
 Instructor _____
 Location _____

Check one: Pretest _____
 Posttest _____

Darken with a pen or pencil the letter that best answers the question

- | | |
|---------------|---------------|
| 1. T F | 16. A B C D E |
| 2. A B C D E | 17. A B C D E |
| 3. A B C D E | 18. A B C D E |
| 4. A B C D E | 19. A B C D E |
| 5. A B C D E | 20. A B C D E |
| 6. A B C D E | 21. T F |
| 7. T F | |
| 8. A B C D E | |
| 9. A B C D E | |
| 10. A B C D E | |
| 11. A B C D E | |
| 12. A B C D E | |
| 13. A B C D E | |
| 14. A B C D E | |
| 15. A B C D E | |

DRUGS IN PERSPECTIVE (DIP)

PARTICIPANT EVALUATION

Instructions: Please circle a rating score for each item.
Do not check in between, above or below
rating scores. Feel free to write any addi-
tional comment on the back of rating sheets.

Course Title _____

Training Staff _____

Name _____

Role (check one) Participant _____ Staff _____

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Directions: Please rate the following areas using the scales below. Draw a circle around the rating score for each item.

CONTENT

Rate the *Lecture* (presentation content).

(A) Utility	1 useless	2 marginal	3 useful	4 very useful	5 exceptionally useful
(B) Interest	1 dull	2 unstimulating	3 interesting	4 very interesting	5 exceptionally interesting
(C) Level	1 simple or too difficult	2 easy or difficult	3 average	4 balanced	5 balanced and challenging at times

Rate the *Resource material* (Resource Manual).

(A) Utility	1 useless	2 marginal	3 useful	4 very useful	5 exceptionally useful
(B) Interest	1 dull	2 unstimulating	3 interesting	4 very interesting	5 exceptionally interesting
(C) Level	1 simple or too difficult	2 easy or difficult	3 average	4 balanced	5 balanced and challenging at times

Rate the *supplementary material* (transparencies, films, charts, etc.).

(A) Utility	1 useless	2 marginal	3 useful	4 very useful	5 exceptionally useful
(B) Interest	1 dull	2 unstimulating	3 interesting	4 very interesting	5 exceptionally interesting
(C) Level	1 simple or too difficult	2 easy or difficult	3 average	4 balanced	5 balanced and challenging at times

Comments: What additional areas do you feel should have been explored? Any additional comments on material you like or disliked?

METHODS

Rate the *large group presentations*.

(A) Objectives	1 inappropriate	2 misleading	3 accurate	4 very accurate	5 exceptionally accurate
(B) Design	1 counter- productive	2 wasteful	3 economic	4 very effective	5 high yield
(C) Acceptability	1 offensive	2 tolerable	3 acceptable to most	4 very desirable	5 high involvement

Rate the *small group processes*.

(A) Objectives	1 confusing	2 misleading	3 accurate	4 very accurate	5 exceptionally accurate
(B) Design	1 counter- productive	2 wasteful	3 economic	4 very effective	5 high yield
(C) Acceptability	1 offensive	2 tolerable	3 acceptable to most	4 very desirable	5 high involvement

Comments: What changes would have helped you/others learn better?

APPENDIX A

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GLOSSARY OF DRUG ABUSE TERMS

This glossary contains the language of the street and user slang with regard to the drugs of abuse. Note that the same slang term may have different meanings in different areas of the country, and even in different parts of the same city. The difference in names for the same drug is a factor contributing to the fact that drug users may not be using what they think they are buying and, generally, never know the strength (potency) of the drug.

A-boot	Under the influence of drugs
Acapulco gold	Mexican marijuana that contains about 1% or less of tetrahydrocannabinol (THC)
Ace	A marijuana cigarette
Acid	LSD (lysergic acid diethylamide)
Acid head	A user of LSD
Ad	Refers to an addict
All lit up	Under the influence of a drug
Amy's	Amyl nitrite ampules
Angel dust	Parsley leaves covered with phencyclidine; finely powdered hashish
Are you anywhere?	Do you use marijuana?
Around the turn	Having gone through withdrawal period
Artillery	Equipment used for injecting and dissolving a powdered drug, or a solution of drugs
Baby	Marijuana
Bad trip/bad acid	An unpleasant reaction caused by a hallucinogenic drug, usually LSD. It may be caused by taking a mixture of chemicals, resulting from an attempt at synthesis. Emotions are dreadful and horrible; the images can be terrifying.
Bag	1. A package of drugs, usually marijuana or heroin. 2. A person's favorite "thing" or drug

Bagman	A person who supplies narcotics or other drugs; a pusher
Ball	Absorption of stimulants and cocaine through the genitalia
Balloon	A penny balloon which contains narcotics
Bambita	Desoxyn or amphetamine derivative
Bammies	A poor quality of marijuana
Bang	The injection of narcotics, usually heroin
Banging	Under the influence of drugs
Barb(s)	Barbiturates
Barrels	LSD tablets
Batted out	Apprehended by law
Bean	A capsule containing drugs
Beat the gong	Smoke opium
Bedbugs	Fellow addicts
Behind the iron house	Staying in jail
Belongs	On the habit
Belted	Under the influence of a drug
Bending and bowing	Under the influence of drugs
Bennies	Benzedrine tablets (amphetamines)
Bernice	Cocaine
Bernie's Flake	Cocaine
Bhang	Marijuana
Big bloke	Cocaine
Big C	Cocaine
Big D	LSD

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Big John	Police;law
.Big man	A person who supplies drugs
Big O	Opium
Bindle	A package of narcotics (usually contains an ounce)
Bingle	A supplier of drugs
Bingler	A person selling narcotics
Bingo	The injecting of drugs
Biz	Utensils used in dissolving and injecting narcotics and other drugs
Black beauties	Biphetamine capsules (amphetamines)
Black magic	LSD
Black stuff	Opium
Blank	Container which holds a nonnarcotic powder that is sold as heroin
Blast	1. Party 2. A strong effect resulting from drug usage
Blasted	Under the influence of a drug
Blow	To miss a vein when injecting
Blow horse	Sniffing heroin
Blow Charlie or snow	Sniffing cocaine
Blow	Move from a place
Blow (pot)	Smoke a cigarette that contains marijuana
Blow your mind	1. To be high from an hallucinogenic drug 2. Achieve a particular ecstatic mental level or high
Blue acid	LSD

Blue angels	Amytal, a barbiturate
Bluebirds	Amytal sodium capsules (barbiturates)
Blue cheer	LSD, methamphetamine, and strychnine tablet
Blue clouds	Amytal sodium capsules (barbiturates)
Blue devils	
Blue heaven	
Blue heaven	LSD
Blue morphine	Numorphan tablets (no longer made)
Blues	Amytal (amobarbital sodium)
Blue velvet	1. A mixture of Elixir Terpin Hydrate and Pyribenzamine (antihistamine) 2. A mixture of paregoric and anti-histamine
Bo bo bush	Marijuana
Bomb	Heroin which is highly potent and relatively undiluted
Bombida	Methamphetamine
Bombita	An amphetamine injection, occasionally with heroin
Boost	Robbery
Boxed	Confined in jail
Boy	Heroin
Brain pills	Amphetamines
Bread	Money
Brick	Compressed block made of marijuana
Broker	A person who peddles dope to addicts
Browns	Multicolored capsules that are long-acting amphetamine sulfate
Brown dots	LSD

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Bull	1. A federal narcotics agent 2. A police officer
Bummer	Another word for a "bad trip"
Bum trip	A bad experience with psychedelics
Burned	Getting cheated during a drug transaction
Burn transaction	Selling a substance as a certain drug when actually it is something else. Example: goldenrod for marijuana
Bush	Marijuana
Business	Equipment used when injecting drugs
Businessman's trip	Dimethyltryptamine (DMT)
Busted	Arrested for possession of drugs
Buttons	Peyote buttons
Buy	A purchase of drugs
Buzz	Mild euphoric reaction to a drug
C	Cocaine
C-joint	A place where cocaine can be bought
Cadet	A new addict
Ca-ca	1. Heroin 2. An inferior quality of hashish, heroin, or LSD 3. Imitation or counterfeit heroin
Cabbage head	An individual who will use or experiment with any kind of drug
California sunshine	LSD
Can	A container which holds marijuana
Candy	Barbiturates
Candy man	A pusher

Cap	A gelatinous capsule that contains heroin or other drugs (usually one ounce or less)
Cannabis	Marijuana
Cartwheels	Amphetamine tablets
Carrie	Cocaine
Cashing a script	Obtaining drugs by getting an illegal prescription filled
Catch up	A process of withdrawal
Caught in a snow storm	Being drugged by cocaine
CB	Doriden tablet
Cecil	Cocaine
Charge	A quick drug effect
Charged up	Under the influence of drugs
Chicken powder	Some amphetamine powder
Chief	LSD
Chip	Use small injections occasionally
Chipping	Irregular use of small amounts of drugs
Christmas trees	Tuinal or eskatrol
Chocolate chips	LSD
Cholley	Cocaine
Cibas	Doriden
Cibeas	Doriden
Clean	Not using drugs any longer
Cleared up	A withdrawal method
Clipped	Getting arrested
Coasting	Under the influence of drugs

Coast-to-coast	Long-acting amphetamines
Coffee habit	A beginner in the use of narcotics
Coke	Cocaine
Cokie	Codaine addict
Cold turkey	Sudden withdrawal from narcotics
Coming down	Recovering from a drug experience or trip
Connect	To make a purchase of drugs
Connection	A drug supplier
Contact lens	LSD found on round gelatin flakes
Cooker	Bottle cap or spoon needed for heating and dissolving heroin in preparation of injection
Cop	To obtain drugs
Cop a deuceway	A buy of a \$2 pack of narcotics
Cop man	A supplier
Cop out	1. Running away 2. To leave 3. Inform 4. Not participating 5. Defect
Co-pilots	Amphetamine tablets
Corrine	Cocaine
Cop-a-sneak	To leave a place
Cotton shot	When water is added to cotton to attempt to get remaining heroin out
Crank	Methamphetamine crystals
Crashing	Withdrawing from a drug experience

Crashing pad	Place where a user recovers from amphetamine use
Crinic	Methamphetamine
Cris	Methamphetamine
Cristina	Methamphetamine
Croaker	A physician or doctor
Croaker joint	A hospital
Crossroads	Amphetamine tablets
Crusher	A police officer
Crutch	A device for holding a marijuana cigarette butt
Crystal	Methamphetamine (Methedrine); cocaine
Crystal Palace	A room, location, or house where methamphetamine is injected
Cubehead	A person who uses LSD frequently
Cube juice	Morphine
Cap cakes	LSD
Cut	1. To dilute a powder drug, usually a narcotic 2. To dilute potency of marijuana
Cut out	Leave a certain place
"D"	Doriden tablets
"D"	LSD
Dabble	To use small amounts of drugs infrequently
Dead on arrival	Phencyclidine base
Dealer	1. A person who supplies drugs 2. A pusher
Deck	A package of narcotics (usually an ounce)

Dexies	Dexedrine tablets or capsules (amphetamines)
Diet pills	Include amphetamine tablets or capsules
Dime bag	\$10 purchase, usually marijuana
Dirty	Have drugs on you; can be arrested if searched
Do a bit	Spend time in jail
Doin'	Using some kind of drug, as "He is doin' cocaine."
Dollies	Dolophine tablets (methadone)
Do righters	Nonaddicts
D.O.A.	Phencyclidine base
DOM	STP
Domes	LSD tablets
Domino	To complete a purchase of drugs
Doojee	Heroin
Dope	Includes any narcotics, sometimes extended to other drugs
Dope fiend	A heroin addict
Doper	Someone who uses drugs regularly
Double trouble	Tuinal capsule (barbiturate)
Down Downer Downie	1. Barbiturates 2. Tranquilizers
Down it	
Dream	Cocaine
Dried up	Off drugs, especially heroin
Dripper	Eyedropper
Drop	To take a capsule or tablet orally

Drop acid	Take LSD
Drop out	Leave a place
Dujie	Heroin
Dummy	1. A purchase, in which there are no narcotics
	2. A poor quality of merchandise
Dust	Heroin, cocaine
Dust of angels	Phencyclidine base
Dynamite	1. A high quality of heroin and cocaine taken together
	2. A strong drug
Eighth	1/8 of an ounce of heroin which is diluted with some inert powder
Emsel	Morphine
Eye openers	Amphetamines
Factory	The equipment used when injecting drugs
Fall	To be arrested
Fall out	When an addict nods or falls asleep on and off, after injecting
Far out	1. Out of touch with reality
	2. Under the influence of drugs
Feds	Federal agents
Fine stuff	Marijuana which is finely cut or manicured
Fix	An injection of a narcotic
Fixed	Under the influence of a drug
Flake	Cocaine
Flash	A euphoric feeling following an injection

Flashback	When a previous drug user hallucinates without taking the drug again
Flats	LSD tablets
Flea powder	Poor quality heroin, or heroin which is greatly diluted
Flip	Become psychotic
Floating	Under the influence of drugs
Flying high	Under the influence of marijuana
Fold up	A withdrawal procedure
Folding stuff	Money
Foolish powder	Heroin
Footballs	Amphetamine tablets or capsules that are oval-shaped
Freak	A regular user of a particular drug. Example: acid freak
Freak out	An experience that is unpleasant and frightful, resulting from the use of a drug
Freeze	When a sale is turned down
Fresh and sweet	A person coming out of jail
Front of the bread	The money is put up first for a drug purchase
Fu	Marijuana
Fuzz	1. A policeman 2. A detective
Fuzzy tail	Police
GB's	Seconal, Tuinal or Doriden
G-man	A federal agent
Gage	Marijuana
Garbage	A poor quality drug

Gazer	A federal agent
Gear	Refers to drugs in general
Gee head	A person who uses paregoric
Geetis	Money
Geezer	A needle shot of any type of narcotic
Geezer	To inject drugs
Get a gift	Obtain some narcotics
Get high	Smoke a cigarette containing marijuana
Get off	To inject or use drugs
Get the wind	Leave a place or area
Gimmicks	Equipment with which a person injects drugs
Girl	Cocaine
Give wings	Give the first heroin injection to a friend
Glad rag	A handkerchief or cloth which is saturated with substances to be inhaled
Glass eyes	A narcotic addict
Glued	Arrested
Gluey	An individual who sniffs glue vapors
Go in sewer	Inject a drug into a vein
Gold	A Mexican marijuana which has 1% or less of tetrahydrocannabinol (THC)
Gold dust	Cocaine
Good go	Purchase a fair amount of narcotics for the money
Good trip	Psychedelic drugs that cause good emotional feelings and pleasant imagery
Goods	1. Narcotics 2. Includes any drugs

Goofball	Barbiturate
Gorilla pills	Doriden
Got beat	Buying a package that doesn't contain any heroin
Gow head	Addict
Gram	The cube form of hashish
Grape Parfait	LSD
Grass	Marijuana
Green domes	LSD tablets
Greenies	The mixture of barbiturates and amphetamines found in a green heart-shaped tablet
Griego	Marijuana
Gun	1. Eyedropper 2. Syringe 3. Hypodermic needle
H	Heroin
Hack	Doctor
Hairy	Heroin
Half-spoon	Half a teaspoonful of heroin
Hand-to-hand	Paying for drugs when they are delivered
Hang-up	1. A personal problem or personality problem 2. A withdrawal
Happy dust	Cocaine
Hard stuff	Includes any addicting narcotic. Example: Heroin, morphine
Hard narcotics	Includes all addicting narcotics
Harness bull	Police
Harry	Heroin

Hash	Hashish
Hassle	The procedure of buying drugs, preparing them, and taking the injection
Hawaiian sunshine	LSD
Hay	Marijuana
Head	A person who depends on drugs
Hearts	Amphetamine tablets which are heart-shaped
Heat	The police
Heavenly blue	Morning glory seeds
Heaven dust	Cocaine
Heavy man	Someone who possesses narcotics
Hemp	Marijuana
High	Under the influence of drugs
Hit	To make a purchase of drugs
Hitting the pipe	Smoking opium
Hitting the steam	Smoking opium
Hitting the stuff	Under the influence of drugs
Hitting up	The act of injecting drugs
Hocus	Morphine
Hog	Vegetable material which has phencyclidine in it
Holding	To have drugs in one's possession
Hooked	Dependent on drugs
Hop	Opium
Hop head	A narcotic addict, mainly an opium addict
Hoppie	A narcotic addict
Horner	One who sniffs narcotics

Horse	Heroin
Hot	1. Sought by police 2. Stolen articles, merchandise
Hot shot	A fatal injection of heroin which may have been intentionally made too powerful
Hot sticks	Marijuana cigarettes
Hustle	1. Prostitution 2. Any activity used to obtain money for heroin
Hustler	Prostitute
Hype	Addict
Ice cream habit	Nonregular drug use
Iced	In jail
I'm beat	I need a marijuana cigarette
I'm holding	I am carrying drugs
I'm way down	I need a marijuana life
In-a-jam	Wanted by the police
In high	Under the influence of drugs
Indian bay	Marijuana
Indian hay	Marijuana
Into	Involved with a drug. Example: She is into acid.
Jab	1. To inject a drug 2. A hypodermic shot
Jag	1. Under the influence of drugs 2. Under the influence of amphetamines
Jay	Marijuana cigarette

Jelly beans	Tuinal
Jive	Marijuana
Jive sticks	Marijuana cigarettes
Joint	Marijuana cigarette
Jolly beans	Pep pills
Jones	A habit
Joy popping	1. Subcutaneously injecting a drug 2. Irregular drug habit
Joy powder	Cocaine
Jump skid	To leave a place
Junk	1. Heroin 2. Can denote any drug
Junker	Addict
Junkie	An addict (heroin)
Kee	A kilogram of a drug, usually heroin
Keif	Hashish
Kick	To get rid of a habit
Kick the habit	Stop using narcotics, or drugs in general
Kicking	A withdrawal process
Kicking the gong	To be around an area where narcotics are sold
Kick sticks	Marijuana cigarettes
Kilo	A kilogram of drugs equivalent to 2.2 lb
Kit	Equipment used when injecting drugs
Knocking on door	When an addict is trying to stay away from other addicts while attempting to quit a habit

L. A. turnabouts	Various colored capsules which are long-acting amphetamine sulfate
Laying on the hip	Smoking opium
Lay out	1. Equipment for injecting drugs 2. Opium smoker's outfit
Laying the hypo	Receiving or taking a shot of narcotics
LBJ-336-JB-336	Methyl piperidyl benzilate (hallucinogen)
Leader	User of cocaine
Leaping	Under the influence of drugs
Lemonade	A poor quality of heroin or any merchandise
Lettuce	Money
Lid	A measure of marijuana in a sale
Lid poppers	Amphetamines
Lid proppers	Amphetamines
Lie down	To smoke opium
Light artillery	A hypodermic addict
Lipton tea	A poor quality of merchandise
Lit up	Under the influence of drugs
Load	A quantity of 25 bags of heroin
Loco weed	Marijuana
Log	Marijuana cigarette
Long green	Money
Love drug	1. MDA (methylene dioxyamphetamine) 2. Methaqualone (soapers)
Love weed	Marijuana
LSD	Lysergic acid diethylamide

M	Morphine
MJ	Marijuana
Machinery	Utensils used when injecting drugs
Magic mushroom	A mushroom containing psilocibin
Magic pumpkin seeds	An STP tablet which is shaped like a pumpkin seed
Mainlining	Shooting or injecting a drug directly into a vein
Maintaining	Keeping a particular level of a drug effect
Make a croaker	Trick a physician into giving narcotics
Make a meet	To make a buy
Make a reader	Get a doctor to fill out a prescription
Make the turn	A withdrawal process
Man	1. Policeman 2. Detective
Manicure	Removal of seeds, dirt, and stems from dried marijuana
Mary Jane	Marijuana
Mary Warner	Marijuana
Merchandise	Narcotics or any drug in general
Mesc	Mescaline (hallucinogenic drug from the peyote cactus)
Meth	1. Methamphetamine 2. Methadone 3. Methadrine 4. Methaqualone
Meth head	A regular use of methamphetamine

Meth run	Constant intravenous injection of methamphetamine
Mexican horse	Mexican (brown) heroin
Mexican reds	Secobarbital capsules
Mezz	Marijuana
Mickey	Chloral hydrate
Mickey Finn	The mixture of chloral hydrate plus alcohol
Micro dots	LSD
Mikes	Micrograms (millionths of a gram)
Mind benders Mind blowers	Hallucinogens
Miss Emma	Morphine
Monkey	A drug habit where there is a physical dependence
Monster	Methamphetamine
Mootos	Marijuana cigarettes
Mor-a-grifa	Marijuana
Morph	Morphine
Morphie	Morphine
Morpho	Morphine
Mouth worker	A narcotic addict who swallows his drugs
Mr. Whiskers	Federal agents
Mud	Asthmador mixed with a carbonated cola beverage
Muggles	Marijuana cigarettes
Mule	A supplier of drugs
Mutah	Marijuana
Nail	Needle

Nailed	Arrested
Narc Narco	Federal, state, or local narcotic officer
Nats	Possible code for barbiturates
Needle	The syringe for injecting drugs
Needle freak	A person who enjoys using a needle
Nibies	Nembutal
Nickel bag	1. A five-dollar purchase of marijuana 2. A measure of heroin
Nimbies	Nembutal (pentobarbital sodium)
Nimby	A Nembutal capsule (barbiturate)
Noise	Heroin
Nose candy	Cocaine
O.D.	An overdose of drugs, narcotics, resulting in death or a coma
On ice	In jail
O.J.	Opium joint - a marijuana cigarette which has been dipped or smeared in opium
On a trip	Under the influence of LSD
On the beam	Feeling good
On the blues	Using Numorphan
On the bricks	Out of jail
On the ground	Out of jail
On the nod	The cycle of dozing and awakening when using heroin
On the street	Out of jail
Oranges	Heart-shaped amphetamine tablets containing Dexedrine

Orange wedges	LSD
Outfit	Equipment used when injecting drugs
Out of it	Nonaddict
Over the hump	The completion of withdrawal
Owsley's acid	LSD
PCPA	p-chlorophenylalanine
PCP	Phencyclidine
Pee	Heroin powder
PG	Paregoric
PO	Paregoric
Pad	A person's habitat or room
Pam freak	Person who inhales aerosolized products
Panatella	A large marijuana cigarette which is strong
Panic man	Addict who has lost his source of drugs
Paper	1. A package of drugs (usually a quantity of 1 ounce)
	2. Prescription
Peace	LSD tablets
Peace pill	Phencyclidine
Peace	STP
Peace tablet	LSD tablets
Peaches	Amphetamine-benzedrine tablets
Peanuts	Barbiturates
Pearly gates	Morning glory seeds
Peddler	Dealer in drugs
Pep pills	Amphetamine capsules or tablets

Pepsi Cola habit	A small habit
Peter	Chloral hydrate
Piece	1. A measure of narcotics 2. A holder of drugs
Pick-up	To make a buy of drugs
Pig	Policeman
Piki	A person who smokes opium
Pillhead	A person who often uses drugs, usually amphetamines and barbiturates
Pillows	Sealed polyethylene bags which contain drugs
Pinks	Barbiturates; Seconal capsules
Pin yen	Opium
Pipe	1. To look 2. An opium utensil
Plant	A place to hide drugs
Play around	Irregular use of drugs
Pod	Marijuana
Pop	The injecting of drugs, usually below the skin
Poppers	Amyl nitrite ampules
Pot	Marijuana or hashish
Pothead	Marijuana user
Product IV	Combination capsules of PCP and LSD
Purple barrels Purple haze Purple ozolone	} LSD

Purple rock	A mixture of caffeine, barbiturates, heroin, and strychnine
Pusher	A person who peddles drugs, narcotics, marijuana
Push shorts	Cheating a buyer of drugs; selling short amounts of drugs
R & R Ripple & reds	} Taking secobarbital capsules when drinking Ripple wine
Rainbows	
Red birds Red devils Red lillies Reds	} Tuinal capsules (barbiturates)
Red rock	
Reefer	Marijuana cigarette
Riding the wave	Under the influence of narcotics
Roach	A marijuana cigarette butt
Roach clip	A device which holds a marijuana cigarette butt
Robe	Robitussin AC cough syrup
Robo	Codeine
Romo	Codeine
Rope	Marijuana
Roses	Benzedrine tablets, amphetamines
Run	Continuing the injections of methamphetamine
Sam	Federal agent
Sativa	Marijuana
Satch cotton	Cotton used to strain the drugs before injecting
Scag	Heroin

Scene	place where a person can buy drugs
Schmack	1. Heroin 2. Cocaine
School boy	Codeine
Score	To purchase drugs
Scrap iron	A bootleg drink made with a hypochlorite solution, alcohol, and mothballs
Scratch	Prescription
Script	Physician's prescription
Script writer	A person who forges prescriptions
Seccy	Seconal capsules
Seeds	Morning glory seeds
Seggy	Seconal capsules (barbiturates)
Serenity tranquility and peace	STP - dimethoxyamphetamine (hallucinogen)
Sewer	Vein
Sex drug	Methadqualone ("soapers") or methylenedioxyamphetamine
Sex juice	An aphrodisiac which is supposed to stimulate sexual desire
Sharps	Needles
Shit	1. Heroin 2. A poor quality of heroin, hashish, or LSD 3. Drugs
Shooting	The injection of drugs
Shooting gallery	Location, room, or house where drugs are injected

Shoot up	The injecting of drugs
Short go	To take a small portion of narcotics
Shot down	Under the influence of drugs
Shrink	Psychiatrist
Sizzling	Sought by police
Skee	Opium
Skid	1. Heroin
	2. To leave a place
Skin popping	The injecting of a narcotic underneath the skin
Slammed	In jail
Sleepers	Barbiturates
Sleeping pills	Barbiturates
Sleigh ride	Under the influence of drugs
Smack	1. Heroin
	2. Cocaine
Smash	Marijuana that has been cooked with acetone, and the oil which results is added to hashish
Smears	LSD
Smoke	1. Wood alcohol
	2. Marijuana
Snappers	Amyl nitrite ampules
Sniffer	A narcotic addict who takes drugs through his nose
Sniffing	Inhaling solvents, cleaning fluid, etc.
Snort	The inhalation of cocaine or heroin through the nose

Snorter	A person who sniffs drugs through his nose
Snow	Cocaine crystals
Snowbird	Cocaine addict
Soapers	Methaqualone (sleeping pill)
Sound	Benactyzine
Spaghetti sauce	Robitussin AC cough syrup
Speed	Amphetamines, usually methadrine
Speedball	A mixture of heroin and cocaine that is taken intravenously
Speed demon	Methamphetamine user
Speed freak	A person who uses methamphetamine frequently
Spike	Hypodermic needle
Splash	Amphetamine powder
Splim	Marijuana
Split	To leave a place
Splivins	Amphetamine powder
Spoon	1. A measure of heroin 2. The spoon which is used for dissolving heroin over heat
Spots	Dextroamphetamine
Squirrels	LSD
Square	An individual who does not use drugs
Star dust	Cocaine
Stash	A safe place to keep drugs
Station worker	A user of narcotics who injects into his arms or legs
Stick	Marijuana cigarette

Stinking	Under the influence of drugs
Stoned	1. Under the influence of drugs 2. A relaxed, pleasant state of mind
Stoolie	Informer
Stoppers	Barbiturates
Straight	1. Not using any drugs 2. Not having any drugs in one's possession
Strawberry field	LSD
Street market	Black market
Strung out	An amphetamine overdose
Stuff	Narcotics
Stumblers	1. Barbiturates 2. Tranquilizers
Sunshine	LSD
Superman pills	Amphetamines
Sweet Lucy	Marijuana
Swing man	A supplier of drugs
Syrup	Codeine
TMA	A combination of mescaline, LSD, and tetrahydrocannabinol
T-man	A federal agent
Take a powder Take the wind	To leave a certain area
Taking a main	Injecting directly into the vein
Tar	Opium
Taste	A small amount of narcotics

Tea	Marijuana
Tea pad	The place where a group of people smoke marijuana
Tea party	A party where mostly everyone is smoking marijuana
Teed up	Intoxicated by a large quantity of drugs
Texas tea	Marijuana
The bag	The bag used to sniff airplane glue or cleaning fluid
The confidence drug	Amphetamine
The one	A material like hashish, supposedly natural tetrahydrocannabinol
Thing	A person's particular interest, often refers to a specific drug
Three-day-habit	The irregular use of drugs
TNT	Heroin
Toak (toke)	A drag off a marijuana cigarette
To be off	A process of withdrawal
Toke pipe	A short stem pipe which is used for amoking marijuana
Tooies	Tuinal capsules (barbiturates)
Tools	Equipment used when injecting drugs
Toye	A small container of drugs
Tracks	The needle scars which result from frequent injecting of drugs
Tranquility	STP
Travel agent	LSD pusher
Trey	A purchase worth three dollars
Trip	An hallucinogenic drug experience

Tripping out	Under the influence of any hallucinogen
Truck drivers	Amphetamine tablets
Tuies	Tuinal
Turkey	The absence of drugs or narcotics
Turkey trots	Scars and marks left from the use of a hypodermic needle
Turn off	To quit using drugs
Turn on	1. Introduce a person to the use of drugs 2. Any stimulating experience caused by the use of drugs
Turn up	To feel the influence of a drug
Turned on	Under the influence of drugs
Turps	Elixir Terpin Hydrate and codeine - a cough syrup
Twenty-five	LSD
Twist	A marijuana cigarette
Twisted	An intense sedation caused by the use of drugs
Uncle Uncle Sam	} Federal narcotics agent
Unkie	
Upper Ups	} Amphetamine tablets
Viper's weed	
Wake ups	Amphetamines
Washed ups	Amphetamines
Washed up	A withdrawal process
Wasted	Under the influence of drugs

Wedges	1. Dexedrine tablets (amphetamines) 2. LSD tablets
Weed	Marijuana
Week-end habit	The irregular use of drugs
Wen shee	Gum opium
Whickers	Federal agents
White junk	Heroin
White lightning	LSD
White merchandise	Morphine
White stuff	Morphine
Whites	Amphetamines
Whiz bang	A combination of morphine and cocaine, or heroin and cocaine, used by the old addicts
Window glass	A square gelatin flake which contains LSD
Works	Equipment used when injecting drugs
Work the leather	To leave an area
Yellow birds	Nembutal (barbiturates)
Yellow dimples	LSD
Yellow jackets Yellow submarines Yellows	Nembutal capsules (pentobarbital sodium)
Yen hook	The utensil used when smoking opium
Yen shee	The ashes from opium
Yen sleep	A period of restlessness and drowsiness during a withdrawal process

APPENDIX B

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SUBSTANCE ABUSE AND THE ELDERLY

by

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INTRODUCTION

Unfortunately, many elderly persons find little relief from the stresses of aging except through the use of drugs. Use of psychoactive drugs, over-the-counter drugs, alcohol, or a combination of these presents a significant problem that has only recently been identified. The topic is important because prevention efforts have been very minimal and there is a need for greater recognition of the problem. In addition, the topic of substance abuse among the elderly speaks to deeper issues concerning the treatment of the elderly in our society. The goal of this paper is to increase the awareness of substance abuse among the elderly and of related issues. What is important to remember is that substance abuse among the elderly needs to be viewed from the context of the logical, sociological, psychological, and economic processes of aging.

In June 1975, the National Institute on Drug Abuse sponsored a conference on drug use and the elderly. One of the major issues cited at the conference was the sociopsychological process of aging as a cause for reliance on drugs. This paper will discuss these factors to expose the problem of substance abuse among the elderly. Depression as it relates to the elderly will be discussed because many of the drugs prescribed are intended to alleviate depressive symptoms. Problems connected with the use of prescribed drugs, alcohol, and over-the-counter drugs will be explored. Although legal drug use represents the primary problem among the elderly, illicit drug use will be only briefly viewed.

Understanding the complexity of the problem is a necessary prerequisite to preventing it, thus this paper will also highlight the need for more responsible action on the part of physicians, therapists, and the elderly themselves, both within the community and in skilled nursing homes. Finally, we will look at the need for more integration of services between substance abuse service providers and those agencies working with the elderly. This need has been detailed in findings and information gathered from a survey on substance abuse service delivery integration with the geriatrics/gerontology field. The survey responses were from professionals within components of the National Training System, specifically the State Training Support Programs.

President Carter has recently recommended:

...a conscious and deliberate increase in attention throughout the Federal Government to the problems related to the abuse of drugs that come originally from legitimate/medical sources. Of particular concern are barbituates, which despite their recognized medical use, are responsible for many deaths and are frequently used in suicide attempts. The withdrawal reaction of patients addicted to barbituates can be more difficult and more dangerous than that associated with heroin withdrawal. They are frequently oversold, overprescribed, and overused.

The relationship between the suicide rate among the elderly and their use of barbituate sedatives is perhaps more of a reality than we know. Twenty-five percent of all suicides in this country occur in those 65 years of age and older, although this group represents only 10 per cent of the population. Mention of suicide is intended to emphasize the extremes of the issue of substance abuse among the elderly. I join with those concerned persons who share in the belief that more fundamental changes in our social policies and

mode of life are required if we are to truly minimize real or perceived needs for drugs among the elderly.

A POLITICAL ORIENTATION TOWARDS THE PROBLEM OF SUBSTANCE ABUSE IN THE ELDERLY

If you see the oppression of the poor, and violent perverting of judgement and justice in a province, marvel not at the matter.... (Ecclesiastes. 5:8)

These wise words remind us not to lose heart even though we feel part of various social systems that do not meet the needs of people equally. The passage serves as a frame of reference and is consistent with issues concerning substance abuse among our older citizens. The elderly need to feel secure in being able to obtain life-sustaining and enhancing goods and services. Like people in other age groups, they want meaningful, satisfying relationships and need to feel that others care for them. They need to engage in meaningful, creative, and productive work that encourages self-expression. When resources are withheld from those in need, when the division and organization of work excludes members of society because of arbitrary age restrictions, and when the distribution of all kinds of rights (i.e., social, psychological, economic, political), are unequal, violence is done. Equality means that all people's basic needs are being met. The oppression of needs is a form of violence. One in four persons reaching the age of 65 can expect to live in poverty (Moss, 1977).

Societal attitudes towards the elderly are marked by a lack or avoidance of awareness and concern of the special needs and problems the elderly face. These attitudes are manifested in social policies

that concern the elderly. Rights, roles and statuses accorded to the elderly are in many ways paternalistic or outrightly oppressive. Employment and retirement practices often discourage the healthy, older person from maintaining a meaningful role in society. Our culture is filled with limiting, defining conditions of existence like "retired", "alienated", "dependent." Old age often brings a feeling of not being needed and being a burden to families, society, and oneself. (Sheldon, et al., 1975) state:

"There seems general agreement that an adequate variety of roles for the elderly is absent and that in many instances there is no role at all which is valued by the individual and by society with resulting loss of self-esteem and feeling of usefulness."

It seems safe to say that no other group feels their personal security so threatened as do the elderly. Social policies often force the individual to select one among a number of unattractive choices regarding retirement. Sheldon, et al. (1975) observe:

"The achievement of a satisfying pattern (of retirement) is not simply a function of the individual's own desires and capacity to handle change but also the settings available to him and the demands made upon him by the social systems in which he finds himself...dissatisfaction or pathology may arise where problems are severe, and where the resources for handling them are inadequate or lacking."

Even benefits and services provided under well intentioned health care legislation often lack efficiency and appropriateness due to insensitivity to the social and psychological dimensions of aging. Drug use and subsequent misuse and abuse is a reaction to not only the physiological process of aging, but a reaction to structural stress as well.

In addressing the problem of substance abuse among minority, high-risk populations, the need for service deliverers and consumers to develop a political perspective is crucial in understanding causative factors of substance abuse and its relation to other problems in our society. Gil (1973) has noted that if low-income families experienced economic gains in such spheres as better housing, nutrition, health, neighborhoods and public services, psychosocial changes eventually would be reflected in lower prevalence of mental illness and emotional stress and:

Similarly, there would also be a decrease in alcoholism, drug use and drug addiction, as there would be less individual need, and less peer group pressure to escape from reality.

On the problem of substance abuse among Blacks, Blackwell (1975) observes:

Rehabilitation, treatment, and maintenance programs will be absolutely useless unless we are willing to confront head on those conditions in the social structure that create in some individuals the need to escape through the use of narcotic drugs. The structural conditions involve economic deprivation, limited access to employment or to the opportunity system in general, and oppressive racism. For those who are already hooked on drugs, the first step is to create an environment that will encourage them to seek assistance in coming to terms with those situations that fostered drug dependency as an adaptive response.

Several professionals in the substance abuse field, legislators, and educators have taken a similiar approach in understanding the problem of substance abuse among the elderly. Mizruchi (1976) has pointed out that the values of working hard and being successful in life lead to meaningless and alienating feelings later in the life cycle when the opportunity to act on these values is denied.

"For a person who has spent a lifetime of building habits and general life patterns which are compatible with the high value placed on success and achievement, retirement and its anticipation can be a crisis the nature of which is little understood by psychologists and social scientists... among the diverse ways that Americans as well as others respond to crisis is the use and abuse of alcohol and drugs."

Thus, the problem of drugs among the elderly is inextricably tied to the values and attitudes that underlie many of our social policies dealing with old age. In a letter to colleagues reporting on the success of a national conference on drug and alcohol abuse among the elderly, Glass (1976) acknowledges:

"A clear outcome from this conference was the reiteration of the obvious (it is, so often, the obvious which eludes us)--substance abuse among the elderly cannot be understood or reasonably dealt with as if it occurs within a vacuum. What must be dealt with by the concerned lay communities are the rights, roles, and considerations afforded the elderly in our society."

Wynne (1974) has clearly articulated the feelings of boredom, loneliness, and depression and the increasing number of stresses and strains of old age with resultant use of drugs. Society shares in the responsibility.

"Even more fundamental is a recognition of the underlying causes of chemical dependence in the elderly, based on an understanding of their rapidly increasing poverty and their place in society because of our society's attitude toward them...since our general attitude towards the elderly creates the conditions under which they must live, and the problems which emerge from this kind of life, so we have found a pharmacological solution to these problems--tranquilizers, sedatives, hypnotics, barbiturates and even amphetamines... those of us in the drug field who have viewed drug abuse as a result of some fundamental problems in society, and as one solution, not just band-aids and field hospitals for the wounded, but political changes and attitudinal changes on the part of the public, realize that the problems of the elderly will need

more than just another drug treatment program... the creation of programs which keep these long range goals in mind, as well as meet immediate needs seem to be what is needed in the future...."

This view of the problem is also getting the attention and recognition it needs in the Senate. Senator Thomas Eagleton, during his keynote address to participants of the "Shadows in the Afternoon" conference on alcohol and drug abuse among the elderly in 1976 stated:

For some, the retirement years are truly the golden years when they can follow the pursuits they had no time for during their working years. But for many others, it is a period of bitter rejection. They are placed on the shelf without a meaningful role in society suited to their experience and their still-active talents. They are denied access to the job market by pervasive age discrimination. Is it any wonder that some of these frustrated and embittered elders look for surcease in alcohol and drugs, encouraged as they are by the pervading ethos of medical practice which holds that old age is a disease from which no one recovers and the physician's job is done when he palliates the symptoms with drugs.

Awareness of the social context in which the elderly live and its effect on individual psychological health is a major aspect in understanding substance abuse among the elderly. The need for service deliverers to become sensitive to factors in the social structure influencing the misuse/abuse of drugs among the elderly is important. Dealing with these external issues as they arise in counseling, therapy, drug education discussions, and training is consistent with the specific topic of drugs: one objective of drug counseling is to help drug dependent persons, abusers, or misusers to confront behaviors, patterns, and reasons for using drugs so as to increase self-understanding and minimize

drug use/abuse; one objective of political practice is to transform the prevailing social order into one conducive to healthy living. It becomes the responsibility of trainers, drug counselors and other service deliverers to integrate these complementary objectives into their practice.

DEPRESSION AND THE NEED FOR DRUGS

Dealing with the stresses and strains of changing economic statuses, physiologic changes in the aging process, and changes in support systems will cause depression in older people. Elderly persons get depressed like other people. On a cross-sectional, longitudinal study of aging, Busse (1967) reported this finding:

"Periods of depression that are more or less incapacitating but do not require medical help develop in the lives of most people. Evidence indicates that such depression periods increase in frequency and depth in the advanced years of life... the older subject becomes depressed when he cannot find ways of gratifying his needs; that is, when social environmental changes or the decreased efficiency of his body prevent him from reducing his tensions, he is likely to have a loss of self-esteem; hence he feels depressed."

In testimony before the joint hearings of the Subcommittee on Aging and Subcommittee on Alcoholism and Narcotics, James Isbister, Administrator of the Alcohol, Drug Abuse and Mental Health Administration (ADAMHA) stated:

"The enormous implications for mental health posed by this segment of the population are reflected by the fact that psychopathology in general and depression in particular rise with age to the point that the highest incidence of *new* [author's italics] cases of

psychopathology of all types in the U.S. is found in the population 65 years of age and older...."

Although the emotional basis contributing to medication misuse lacks hard evidence in the literature, professionals in the field have suggested the relationship. Pascarelli (1975) states:

"Isolation, poverty, physical disabilities and low status subject elderly persons to stress and may predispose them to substance abuse."

Gaetano (1977) found from experiences in working with the elderly that stress can affect the way in which the older person perceives and uses legitimately prescribed medicine. The Health, Education and Welfare Committee on Mental Health and Illness of the Elderly, established by Congressional legislation, has recently cited two of its priority areas to be: 1) research on the depression of older Americans which so often leads to alcoholism, drug abuse, and suicide; and 2) research on the use, misuse, and long-term effects of psychotropic drugs (Adamhanews, 1977).

The neurotic or reactive depressions are the most common among the aged.* They account for about 80% of the depressions encountered by clinicians (Lipton, 1976). Depression in the elderly is easily and frequently overlooked. Its symptoms may be regarded as consistent with senescence or they may be confused

*Depression belongs to two main categories. The first includes the classical picture of endogenous depression with clinical similarities to manic-depressive disorder. Characteristics include retardation, guilt, self-depreciation, hypochondriacal ideas. The second type may be called the reactive depressions in which the emotional disturbance is less profound. These depressions are often reactive to physical illness or social or economic stress or deprivation (Epstein, 1976).

with various organic states. The elderly themselves may accept such feelings as being inevitable accompaniments of aging (Epstein, 1976). Lipton (1976) emphasizes that scientists know very little about the biology and biochemistry of 80-90% of the depressions encountered. An understanding of these reactive type depressions requires further knowledge of how psychological experiences are transduced by the brain to produce concomitant changes in behavior and bodily function. Vickers (1976) has demonstrated the effectiveness and importance of combining drug therapy (mostly antidepressants) with group therapy, attitude therapy, and milieu therapy. In his community treatment program where this combination occurred, total geriatric admissions for hospitalization were reduced 50%. Lipton (1976) has found that treatment with tricyclic antidepressants must be reinforced with appropriate environmental support systems, if treatment for the depression is to be truly successful.

The implications for treatment of depression in the elderly become more clear. Clinicians need to be more responsible in diagnosing elderly clients. If depression is frequently misdiagnosed then the application of prescribed drugs may not be appropriate and could cause harm. Since little is known about the biological characteristics of the majority of reactive depressions in the elderly, the question arises as to the appropriateness, responsibility, and ethicalness in treating such depressions with chemical drugs that interact with the biochemistry of the person.

Unfortunately, many elderly do not receive the simultaneous interpersonal therapy essential to successful drug therapy. This will be covered more later.

PRESCRIPTION AND OVER-THE-COUNTER DRUGS

It is not unusual in our society that the use of drugs is condoned and encouraged as a first line of defense in treating illness. The elderly are particularly vulnerable to the use and misuse of prescription drugs. While they comprise 10% of the population over 65, the elderly consume 25% of the nation's prescription drugs (Task Force on Prescription Drugs, 1968). It has been estimated that drugs constitute 20% of the out-of-pocket health expenditures (National Council on Aging, 1970). The vast amount of drugs taken by the elderly and often taken simultaneously increase the chances of misuse.

According to Lenhart (1976) the four most prevalent geriatric conditions for which drugs are most frequently prescribed consist of 1) heart problems, 2) hypertension, 3) arthritis, and 4) mental and nervous conditions. Although mental and nervous conditions account for less than 7% of all prescriptions written, four psychotropic substances; librium, valium, luminal, and doriden, are among the ten most prescribed drugs for persons 65 and over (Task Force on Prescription Drugs, 1968). The elderly, according to the Chambers (1971) study were found to have the largest percentage of regular users of barbiturate sedative hypnotics, non-barbiturate sedative hypnotics, minor tranquilizers,

and major tranquilizers. In a presentation before a national conference on alcohol and drug abuse among the elderly, Peterson (1976) states that over 20% of the prescription drugs that the elderly receive are tranquilizers or psychoactive drugs. According to Peterson, the elderly are the largest users of barbiturates and tranquilizers.

In testimony given before the Subcommittee on Aging and the Subcommittee on Alcoholism and Narcotics, Dr. Robert DuPont, Director of the National Institute on Drug Abuse, noted that nearly 30% of the population over age 50 reports legitimate medical use of sedatives, a greater percentage than any other age group. Of this age group, 17 per cent admitted to taking a barbiturate sedative during the day. Further, in the year ending January 1975, there were 3.2 million Seconal^(R) appearances (the most commonly used barbiturate sedative) in the National Prescription Audit with 32 per cent going to persons over the age of 60 and 23 per cent to persons over the age of 65. For Valium^(R) over the same period, there were 33.5 million appearances with 31 per cent going to those persons age 60 and older and 21 per cent going to those 65 and older.

The Drug Abuse Warning Network (DAWN) reported the following drug incidents with the 50 and over age category for the period April 1974-April 1975 from emergency rooms, crisis centers, in-patient units, and medical examiners: Librium^(R) 8 per cent, Valium^(R) 7 per cent, Doriden^(R) 15 per cent, Luminal^(R) 8 per cent, and Seconal^(R) 8 per cent. Petersen and Thomas (1975) note that

many drug reactions are very probably never presented in a clinical setting such as the kind from which DAWN gets its data. Compared to younger persons, the older drug abuser is underrepresented; among those who do come to public attention, their drug misuse seems to result from drugs most often prescribed to them. The DAWN study notes that psychic effects as a motivation decrease in relative importance with increasing age groups, and conversely, suicide attempts/gestures increase in importance with increasing age.

The University of Washington's School of Medicine reported in 1973 that each hospitalized Medicare patient was receiving an average of ten different kinds of medications. While the use of medications among the non-hospitalized aged is probably lower, they also use a large number of prescribed and non-prescribed drugs (Henning, 1975). The belief that the elderly are over-prescribed and that there is a problem with the use of over-the-counter (OTC) drugs is confirmed by Pascarelli (1976).

According to testimony of Schuckit (1976), the interaction of prescription drugs combined with certain OTC drugs can cause negative drug reactions in the elderly. OTC drugs can potentiate or nullify the therapeutic effects of prescription drugs. Some of these OTC drugs subject to misuse by the elderly include aspirin and aspirin compounds, laxatives, and bromides. When bromide accumulates in the body, symptoms result that can mimic a wide variety of psychiatric problems including an organic brain syndrome (confusion and disorientation). Guttman, et. al., (1977)

found that less than 5 per cent of the elderly abstain from any drugs while approximately half of the elderly use some combination of prescription and OTC drugs with alcohol. Their study pointed to a consistent pattern of lowered self-esteem and low self-assessment of individual capabilities among drug users. More women than men reported using psychotropic drugs. Legal drugs were used 2.65 times more often by women, and most heavily by elderly women living alone and not married. According to Brown's (1976) data, which reflect population figures up to 1975, 17.4 per cent of the women between the ages of 55-64 are living alone while 36 per cent of the women 65 years of age and over are living alone. For men the figures are 7.6 per cent and 14.2 per cent respectively.

METHADONE MAINTENANCE

It has been estimated that five percent of methadone maintenance patients are age 45 or older (as compared with 49% of the comparable populations in the cities) with 27% at least age 35 (Capel and Stewart, 1971). Several studies have described older addicts as being about age 60 at the time of the study with an average of 35 years of abuse behind them (Ball and Urbaitis, 1970) (Capel and Stewart, 1971). According to Pascarelli (1975), prior to joining a methadone treatment program, most addicts use Dilaudid^(R) or another narcotic for several years. Presently, persons over age 60 comprise about 1% of the total methadone treatment population. Data from the Roosevelt Hospital Treatment program in New York

City project at least a sixfold increase in the number within the next decade. Pascarelli states:

Because of long-term drug history, patients may require relatively high doses of methadone. They tend to resist lowering of the dosage. The elderly in treatment are not inclined to accept detoxification, preferring to remain on methadone maintenance even as they enter a nursing home, perhaps because of decreased tolerance to the physiologic changes accompanying lowered opiate dosage.

Pascarelli contends that in the near future there will be an actual and relative increase in the numbers of elderly patients on methadone.

According to DuPont (1976), 3.3% of all clients in federally funded drug abuse treatment programs are over the age 45. However, there were no statistically significant admissions to federally funded treatment of persons age 65 and over. DAWN statistics cite that the 50 and over age group represent 1% of the drug incidents reported during April 1974-April 1975 for heroin.

According to data supplied by Schuckit (1976), a major reason given by the elderly addict for seeking drugs other than heroin is his inability to "hustle" as well by stealing, resulting in a lower income and necessitating compromises on drugs of choice. Schuckit's studies have found that there is a greater likelihood that the older addict will stay in therapy longer and complete treatment, although he probably enters treatment with a higher level of impairment. Overall, the data are very scarce on the abuse of illicit drugs by the elderly.

THE ELDERLY CONSUMER

Of approximately 22 million people in the age group 65 and over, 95% are living in the community and monitoring their own health care (Gaetano, 1977). Their self-medication includes the administration of prescribed drugs and the selection and use of over-the-counter drugs. The rates of absorption, distribution, metabolism and excretion of drugs is different in advancing age and yields a different therapeutic response than in the younger adult (Vestal, 1976). Danger and difficulty in using drugs may be compounded for the elderly because of problems in opening medicine containers, reading labels or instructions, distinguishing between pills, and hearing instructions.

Studies done by Schwartz (1962) and others point to several common and potentially dangerous errors in taking medications.

These include:

- using old (expired) medications
- not following prescription instructions
- taking medications improperly, i.e., with certain foods or without certain foods, chewing rather than swallowing
- mixing alcohol and/or other prescription drugs and/or OTC drugs inappropriately
- forgetting to take medicines
- lack of knowledge of name of the drug
- lack of knowledge of action or side effects of drug
- borrowing and lending medicines
- mixing drugs in one container or mismarked container

The following tips on the prevention of drug misuse were developed for drug education discussions with the elderly. They were used to build a base of discussion with the Grey Panthers and elderly classes of the American Red Cross's "Home Health Care" course during the summer of 1977 in Washington, D.C.

TIPS ON THE PREVENTION OF DRUG MISUSE FOR ELDERLY PERSONS

1. Upon making a visit to your doctor, inform him of your current drug regimen (medications being taken)...especially if you anticipate that the doctor will prescribe you new medication.
2. Keep a list of current medications in your purse or wallet...in case you forget your drug regimen, you will have the list to show each physician you visit. Include on the list emergency numbers of doctors, hospitals, clinics.
3. When you visit the doctor, insist that you get all your questions answered...it is your body and you have a *right to know* anything concerning your health.
4. Use only one pharmacist...reveal your drug regimen to him when purchasing prescription drugs *and* over-the-counter drugs. Some of the OTC drugs can react negatively.
5. Inform your physician and pharmacist whether you drink alcohol, when and how much. Alcohol and some drugs interact negatively and can be dangerous.
6. If you need drugs, tell your doctor and/or pharmacist that you wish to purchase the *generic* (that is, the chemical name) brand rather than the *name* brand drug, if possible. You will save much money in purchasing the *generic brand* drug.
7. Ask your doctor and/or pharmacist what are the common side effects of a new prescription and what to do if the effects should arise.

8. Make sure the medications have *clear written instructions* and labeling; if you're not clear, check with the doctor; i.e., should you eat with meals, before meals, or after meals.
9. Keep medications in one place.
10. Throw out all old medications...do not use old medications.
11. Take all medications as prescribed, or consult your physician before discontinuing use.

As stated before, these tips served as a focus of discussion; however, it was interesting that many related issues were raised by participants. Issues such as attitudes towards the elderly in general, causes of depression, asserting oneself with the doctor, the nature of alcoholism, national health insurance, and alternatives to the use of medication were a few of the topics dealt with in the social context of drugs and the elderly.*

PHYSICIANS

Responsibility for minimizing and preventing drug misuse/abuse lies in large part with physicians. It stands to reason that since doctors are the only professionals who have the authority to prescribe medicine, that responsibility would rest with them as to proper diagnosis, proper prescription, proper dosage, instructions, etc. Unfortunately, there is a great need for doctors trained in geriatrics and sensitive to the needs of the elderly. In addition,

*For more information on how the elderly can prevent negative drug use from occurring, contact Ms. Bunny Staples, Elder-Education Project, Center for Human Services, 5530 Wisconsin Avenue, Bethesda, Maryland 20034.

doctors need to be informed of differential amounts of dosage of certain medications for the elderly. Dr. Robert N. Butler, Director of the National Institute on Aging, states (1976):

"Generally speaking, our medical schools do not provide education in basic geriatric medicine. Perhaps half of the \$117 billion health care dollars in 1975 were spent in areas related to chronic illness in the later years. Medical school curricula do not reflect this. Although there are 1.2 million people in 23,000 nursing homes throughout the country--more patients than in hospitals--not one medical school requires its students to routinely, systematically rotate through nursing homes. There is not one endowed chair of geriatric medicine in the United States."

"Perhaps one of the biggest problems we face is the enormous educational process which needs to take place in this country before we can eradicate negative attitudes toward aging. This attitude is what psychiatrists call "counter transference" or what I have called "ageism." Along this line, we need research to determine how the appropriate inculcation of respect for the elderly can be taught and the relationship between personal fears of death and dying and our attitudes toward old age and old people."

Dr. Gene D. Cohen, Chief of the Center on Aging NIMH, cited six major categories of causes that interfere with the relationship between the elderly patient and practitioner (1977).

1. Attitudes affecting the desire and willingness to work with the elderly.
 - a. The aged stimulate the therapist's fears about his own old age.
 - b. Elderly patients arouse the therapist's conflicts about his relationships with parental figures.
 - c. The therapist thinks he has nothing to offer old people because he believes that they cannot change their behavior or that their problems are all due to untreatable organic brain disease.

- d. The therapist believes that his psychodynamic skills will be wasted with the aged because they are near death and not really deserving of attention.
 - e. The patient might die in treatment which might challenge the therapist's sense of importance.
 - f. The therapist's colleagues may be contemptuous of his efforts on behalf of aged patients.
2. A therapist's myths, stereotypes, and misinformation regarding older people interfere with the recognition of their problems and may preclude a decision to provide treatment.
 3. Economic concerns, both real and exaggerated, have provided explanations and excuses for not treating the elderly.
 4. The therapist may be uneasy about the possibility of being over-whelmed by the diversity of the problems an older individual might present.
 5. The elderly patient may have problems getting to the therapist (physical limitation and transportation difficulties).
 6. Cultural insensitivity has slowed community and societal responsiveness to the aged.

Butler (1975) reported that 82% of psychiatrists in a metropolitan area responded to a mail questionnaire survey concerning the quality and quantity of their contact with emotionally disturbed, community-resident elderly people defined as 65 years and over. Fifty-five percent reported no contact with the elderly. The remaining forty-five percent reported spending approximately 76 hours each per year with the aged. Based on the total number of psychiatrists responding, less than 2% of psychiatric time was spend with elderly patients, or less than one hour per week. Active modes of treatment such as psychotherapy were rarely employed:

Psychiatrists are no less remiss than general physicians regarding drug use for older patients. Rather than offering psychotherapy, many psychiatrists "solve" the emotional and mental problems of old people through use of chemical strait-jacketing. While psychoactive agents can be of value when judiciously employed, they are often a means for avoiding the long process required to help older people effectively through a crisis.

It is estimated that from 10 to 25 per cent of the elderly in the community are suffering from significant mental impairment, whereas more than half of the elderly in nursing care homes display significant mental impairment. Some measure of the lack of attention given the aging by mental health professionals is reflected in a recent NIMH study that showed that more than sixty per cent of the elderly admitted to state mental hospitals have received no previous psychiatric care, that is, the state hospital is the first mode of mental health intervention for them. Moreover, fewer than four percent of persons seen at public or private mental health clinics are over age 65 (Isbister, 1976).

The need to develop sensitivity toward the elderly through increased education is apparent; Butler (1976) notes that:

1. Medical students are not exposed to healthy older people in the same fashion that they are exposed to healthy babies in sunny, well-baby nursing clinics. There isn't a medical school in the country which routinely and systematically rotates students through community senior centers.
2. Current estimates are that perhaps less than 15 of an estimated 25,000 faculty members of American medical schools have any genuine expertise in geriatric medicine.
3. Few American medical schools teach geriatric medicine--32 electives among 114 medical schools. This lack of training is exacerbated by the

absence of special considerations related to the aging patient in our classic textbooks of medicine and pharmacology.

SKILLED NURSING HOMES

Reportedly only 5% of the elderly are institutionalized at any one time; this figure does not indicate the total number of elderly persons who are institutionalized in one year. The odds are good that anyone who lives to a fairly advanced age will spend at least some time in an institution and the nursing home population is almost certain to increase (Basen, 1977). Tranquilizers account for almost 20% of the drugs supplied to nursing homes, totaling \$100 million a year. Fully one-half of all tranquilizers used are the two most powerful, Thorazine^(R) and Mellaril^(R) (Moss, 1977). These drugs are classified as anti-psychotics, to be prescribed only for serious mental illness.

Moss (1977) presents the following profile of America's one million + nursing home patients:

They are old:	Average age 82; 70 percent are over 70.
Most are female:	Women outnumber men three to one.
Most are widowed:	Only 10 percent have a living spouse. Widowed, 63 percent; never married, 22 percent; divorced, 5 percent.
They are alone:	More than 50 percent have no close relatives.
They are white:	Whites, 96 percent; blacks, 2 percent; others, 2 percent.
They come from home:	Some 31 percent come from hospitals; 13 percent from other nursing homes the remainder from their own homes.
Length of stay:	An average of 2-4 years.
Few can walk:	Less than 50 percent are ambulatory.
They are disabled:	At least 55 percent are mentally impaired; 33 percent are incontinent.

They take many drugs:
Few have visitors:

Few will leave:

Average 4.2 drugs a day.
More than 60 percent have no
visitors at all.
Only 20 percent will return home.
Some will be transferred to
hospitals, but the vast majority
will die in the nursing home.

According to a report by the Long Care Facility Improvement Campaign (1976) multiple drug prescribing practices for individual patients is the prevailing pattern in skilled nursing homes. The average number of prescriptions-per-patient was 6.1. Cathartics ranked first, analgesics second, and tranquilizers third among drugs prescribed. Patient drug profile records were in use for only 65% of the nursing homes to facilitate drug regimen review, a preventative measure. Although correct recording of the drugs administered was reported to have taken place in 93.3% of the homes surveyed, a significant number of the facilities (22.8%) did not govern the administration of drugs with a stop-order policy, which automatically limits drug prescriptions as to time or number of doses.

The Study Commission on Pharmacy of the American College of Pharmacy devoted two years to an examination of the practice of pharmacy as an integral part of the health service system and recently published its report: *Pharmacists for the Future*. The Commission identified their major concern as "the discontinuities which exist between the generation of knowledge of drugs and the application of that knowledge in the clinical use of drugs."

Discontinuities were seen in and between all phases of the process from manufacturing to distributing, prescribing, dispensing and administering drugs as well as in the intended and actual effect upon the person receiving the drugs and in monitoring of therapy. The implications derived from the report included the encouragement of pharmacists playing a greater role in the drug therapy of patients by being trained in the methodology for reviewing drug regimens and by providing more information about drugs to patients, prescribers of drug and nursing home personnel (Long Term Care Facility Improvement Campaign, 1976).

The responsibility must be shared among consumer, pharmacist, doctors' administrators of nursing homes and others in addressing this problem. A primary way would be through drug education with professionals working with the elderly as a preventative measure. Certainly the pharmaceutical companies have a need for more social responsibility in the way they advertise and promote drugs. Professionals need to be open to the problem in a way that would enlighten them and subsequently make an impact on clients. Training is important and will be discussed later.

THE ELDERLY ALCOHOLIC OR PROBLEM DRINKER

Neither the traditional definition of the alcoholic or of the problem drinker is adequate to describe the elderly alcoholic. Again, the bio-psychosocial characteristics of the aging process experienced by the elderly must be taken into consideration in viewing the problem. Carruth, et. al., (1975) have estimated

7.5% of the population over 55 to be problem drinkers.

Elderly alcoholics remain "invisible" in the community. In addition, they often do not receive the services required for alcoholic treatment. They are excluded from many resources on the assumption that they are poor risks for treatment. In large multi-faceted treatment institutions, the elderly are likely to appear within other treatment services rather than on alcoholism units (Carruth, et. al., 1975). Elderly problem drinkers/alcoholics do not make frequent use of community services or individual providers. By conservative estimates, 85% of all elderly problem drinkers/alcoholics are not receiving any type of service directly related to their drinking problems (McCuan, et.al., 1976). They are often isolated by living alone, or the drinking is put up with by the family, or they are hidden within the institutional settings where they often do not receive treatment for their alcoholism.

Pascarella (1975) has noted basically two types of elderly alcoholics. The first is the person who has a life-long history of drinking and has somehow survived into old age. The second type is represented by the person who has begun drinking in old age. The condition represents a second peak in the age-related incidence of alcoholics. The prognosis is good for full recovery if this type of alcoholism is recognized and the stressful circumstances are alleviated that had brought on the abuse of alcohol. According to the testimony of Deering approximately 66% of older problem drinkers developed their problems at a considerably earlier

age. However, with increasing difficulties facing older people, it can be expected that an increasing proportion will initiate their problem drinking later in life.

According to a study done in Iowa, the number of elderly alcoholics is quite substantial. The study reported on a survey of 225 referral and treatment agencies throughout the United States, 14 treatment agencies in Iowa, and six agencies in a seven-county area in the eastern section of the state. It was found that 18% of the clientele of all responding agencies were 55 years or older, while in Iowa the figure was 24%. However, "these figures probably do not represent the true proportion of alcoholics who are elderly." (NIAAA Information and Feature Service, April 1977). In the national phase of the survey, only one tenth of the 225 responding agencies offered specialized programs to elderly alcohol abusers. In Iowa, only one out of the 14 responding agencies offered a specialized program to treat the elderly alcohol abuser.

Williams (1976) describes the bind that many elderly alcoholics face in seeking treatment. She states:

"...an older person who has already been through inpatient treatment, and who may need the services of an alcoholic halfway house, may be precluded because of his age, the fact that he is no longer looking for a job, and the fact that he has a pension. The same is true on the other side of the story, that oftentimes a person who may be in need of a nursing home or other age service may be precluded, and ineligible, because of the history of alcohol abuse."

Elderly alcoholics who have a long history of drinking often have a long history of treatment. Dr. David Pittman has coined the term "revolving door" to describe the kind of alcoholic who consistently goes in and out of treatment programs and/or the criminal justice system because of the nature of his problem. It must be remembered in treating this kind of elderly alcoholic that the individual is suffering from a disease. In writing on social casework with the alcoholic Laura Root states:

"When an alcoholic is returned to a treatment facility with a relapse, or comes into the office with evidence of imbibing, if the social worker automatically thinks, "oh not again" I question whether this is an objective or moralistic attitude. Therefore, it is extremely important for the social worker to accept the fact that alcoholism is a chronic disease, which can be arrested by proper treatment, before the worker can hope to deal successfully with the alcoholic patient."

This principle applies not only to social workers, but substance abuse and health service people who come in contact with the elderly alcoholic who has a long drinking history. Since the development period for addiction can be anywhere from 7 to 25 years with an average of 15 years, I have included a chart of alcohol addiction and recovery developed primarily by E. M. Jellinek (see appendice) so that substance abuse workers will be sensitized to the possibility of alcohol addiction happening in older age. A recent study of 1,636 admissions to a suburban mental health center during 1972 revealed that 17% of the patient admissions 65 years of age and older evidenced alcohol abuse as a problem on admission (Zimberg, 1974).

In some instances, alcoholism can be arrested with the use of other pharmacological agents. This may seem particularly tempting with the older patient because intensive or long-term therapy is perceived as futile. Gitlow (1970), however, raises the following cautionary points:

1. If you're going to have to relieve the symptoms of this alcoholic by giving him a sedative drug, you must rarely, if ever, give it outside the hospital. Give it only in a situation where you have complete control of the patient and the dosage of medication.
2. The way to handle the individual in order to keep him from drinking again is not through the use of sedative drugs, because as soon as you give sedation of any sort, he begins to repeat the cycle.
3. The simple act of prescribing sedatives in order to relieve the anxiety symptoms of the alcoholic is the one thing that will guarantee failure almost 100% of the time. There are, for the most part, no drugs of any great value in treating alcoholism.

The reason for this is that sedative drugs are qualitatively identical, and can replace one another. Gitlow notes that the most important preventative measure to alcoholic intake is to bridge the alcoholic's isolation by use of simple understanding and compassion. The long term treatment of alcoholism must be directed toward increasing the alcoholic's capacity to tolerate anxiety without recourse to sedation. Reassure the elderly who suffer from depression and may be in need of both drug and interpersonal therapy, the elderly alcoholic rarely needs drugs in therapy but people who "understand and are compassionate, who offer the ear, the time, and the hand to help him through his discomfort."

INTEGRATION OF SERVICES

Substance abuse among the elderly can be minimized if service delivery systems in the substance abuse field and the geriatrics/gerontology field become more fully integrated. Agencies whose clients are primarily the elderly need to be sensitized to the drug and alcohol problem that may exist with their clients.

Likewise, service deliverers in the drug abuse field need to be sensitized to the particular drug dependency problems and factors associated with the potential for abuse the elderly face.

Dr. Ernest P. Noble, Director of the National Institute on Alcoholism and Alcohol Abuse states:

"We see very great benefit in developing linkages between existing alcoholism services and programs and the rich network of existing programs and services for the elderly...at the state level, state authorities for alcoholism and state agencies on aging can cooperate in planning for and development of prevention activities, public information and education, and early identification of problem drinking in older persons. Single state agencies can also work together to encourage coordination and referral among local alcoholism and aging programs financed with state and local funds."

Kelley (1976) calls not only for problem recognition but the organization and coordination of resources and skills. He states:

"...the problem of substance abuse among the elderly may be gaining new social awareness, the challenge of combating it lies in the mobilization and coordination of resources and skills...resources and skills which do exist but which require more than problem recognition if planned change is to occur."

In a workshop on the federal perspective of the problem of elderly substance abusers, representatives of NIDA, NIAAA, and NIMH noted that the federal response to social problems relies heavily on

state demands, and encouraged local officials and program personnel to provide more "push" from the field for greater use of funds for the aged (Medical College of Pennsylvania, 1976).

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The National Training System: Survey of State Training Support Programs

The National Training System (NTS) is a creation of the Manpower and Training Branch of the National Institute on Drug Abuse. A major component of the NTS are the State Training Support Programs (STSP's) found within the Single State Agency (SSA) of each state. A function of the STSP is to provide training to service deliverers in the alcohol and drug abuse field. Training material is developed and disseminated through the National Drug Abuse Center, and states can also develop their own training material. A descriptive type survey (see attached addendum) on substance abuse service delivery and geriatrics was sent to each STSP program coordinator and persons involved in the training of service deliverers in each state. The purpose of the survey was to gain an indication of the need for improved awareness of the problem, the extent of training being done in this area and to see what integration of substance abuse service delivery and the field of gerontology now exists. Fifty responses were received, representing 29 STSP's. In responding to question #6, several persons listed multiple items, which is the reason there are more total items mentioned for that question than there are total responses.

SURVEY FEEDBACK

Question (#1) asked: "Are attitudes towards the elderly explored when doing substance abuse training with service deliverers? If yes, what is the nature of these attitudes?" Eighty-one per cent of the respondents reported no systematic exploration of the problem

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during training. Attitudes coming up in discussion in those states that did have training dealt with such aspects of the problem as: legal prescription dependency; awareness of the types of drugs the elderly use; alternatives to drug use; feelings toward the elderly alcoholic; how the elderly can make use of leisure time; need for adequate housing; combining drugs. In New York State, the exploration of how different minority groups are affected is covered in all training programs. In New Jersey, a training needs assessment indicated that service deliverers have concerns for the elderly that warranted exploration of the problem during training. A respondent from South Carolina noted that many times the elderly are seen in terms of grandparents rather than in terms of the person who is facing tremendous physical and emotional changes that may influence their use/misuse of chemical substances. Washington State, Tennessee, and Minnesota also reported creating awareness and exploring the problem during training.

Question (#2) asked: "To what extent have trainers encountered inquiries and questions dealing with substance abuse among the elderly? If 'much', are sources of information focusing on this issue given for referral?" Thirty-two per cent of the respondents reported that they receive no inquiries or questions dealing with the problem of the elderly substance abuser during training. Sixty-six reported that questions and inquiries were encountered "little." Several of the respondents reported that the majority of training participants do not identify that group as within their usual client caseloads. Other respondents noted that trainees are often

referred on the topic to a State Office of Aging, (who refer people to Single State Agencies (SSA's) and STSPs for "drug" information). Minnesota reported that they receive many inquiries and questions on the topic during training, and referrals are made to their "Elderly Section" of the Minnesota Chemical Dependency Association.

Question (#3) asked: "Do programs now exist within your STSP aimed at educating substance abuse personnel with specific issues and needs concerning the elderly substance abuser?" Seventy-two per cent of the respondents reported that no programs currently existed. Twenty-eight per cent reported that some education took place on specific issues and needs of the elderly. For example, in South Carolina, a two-day workshop was held focusing specifically on medication abuse. In South Dakota, training in the area of addiction to legally prescribed drugs is planned through their Speaker's Bureau. A series of four workshops were sponsored by the Tennessee Department of Mental Health and Mental Retardation in four metropolitan locations in June, 1976. A training program at the Annual Ohio Drug Studies Institute was provided by Ms. Bunny Staples of the Center for Human Services' Elder-Ed. project, Washington, D.C. Coordination with the Kansas state pharmaceutical association for training and education programs was established and mass media messages are planned for general population awareness. A NIDA-funded research grant on the topic was included in an educational project happening in Kentucky. In New York, the SSA funded a demonstration project in Broome County that contained the following components:

- o the formulation of a patient profile to obtain information

on the drug behavior of 100 patients.

- the distribution of a questionnaire to collect information on drug related behavior and attitudes of 109 senior citizens in Broome County.
- the delivery of a series of speeches, workshops and educational programs geared to senior citizens and professionals and paraprofessionals concerned with issues of drugs and the elderly.

The results of this project included:

- the development of a curriculum so that the educational programs can be replicated elsewhere.
- the publication of a textbook, *The Elderly: Their Health, And the Drugs In their Lives*.
- the production of an audio tape containing a drug related discussion among a group of senior citizens.

This six-month project reached a total of 3,300 people although it was confined to only one county. The Florida Association of Drug Abuse Treatment and Education Programs hosted a two-day regional conference entitled "Substance Abuse Among the Elderly." Primary emphasis was placed on identifying the problems, i.e. types of drugs misused and abused by the elderly, the significance of the aging process on drug-taking behavior and the impact of prescriptive and over-the-counter drugs on the elderly.

Question (#4) asked: "Given the resources, do you feel that an outreach effort directed at educating groups and individuals of gerontological associations, senior citizen centers, CMHC's and the like would impact on the prevention of substance abuse among older persons?" Ninety-two per cent of the respondents answered "yes", given the resources. Four percent were unsure, while four per cent responded "no." Many of the respondents felt that the

success of and outreach effort would depend on appropriateness of content and delivery mechanisms. In addition, coordination and cooperation would need to be developed with the different types of agencies delivering services directly with the elderly, as well as pharmaceutical personnel, nursing home staff and physician groups. Some felt that outreach efforts should be conducted by existing staffs of aging agencies at contact points where the elderly congregate. The question is, how are staff of aging agencies going to receive their training? Also, there is a need for service deliverers in the drug abuse field to be trained in this area.

Question (#5) asked: "Currently, is there any coordination or outreach happening with such organizations concerned with the elderly as far as training and educating the staff and consumers of geriatric services?" Seventy-one per cent of the respondents reported that no outreach and/or coordination was currently happening. Twenty-nine per cent reported that some kind of in-service training or joint efforts were being planned. In Virginia, the Department of Mental Health and Mental Retardation is planning a combined study on the extent of the drug problem among the elderly and alternatives to keeping elderly citizens out of institutions. The Arkansas STSP is also coordinating with their State Office on Aging for training. In Illinois, it was indicated that the potential exists to coordinate with private groups already working in the area. In Maine, a day-long seminar was conducted for staff from serving the aging agencies to increase their knowl-

edge and awareness of alcohol problem in particular. In Colorado, the Alcoholism Councils are assembling a task force of senior citizen organizations to deal with the problem. A "Safety and Health Workshop for Retired Persons" is planned in Alabama and is being co-sponsored by the School of Medicine and School of Public and Allied Health, University of Alabama. In California, it was noted that the State Office of Aging considers this problem to be part of its responsibilities.

Question (#6) asked: "What has prevented your STSP from developing or improving an outreach program directed toward geriatric organizations?" One respondent notes:

Nothing has prevented the state from developing or improving whatever outreach toward the elderly may exist or be achievable. It has been...simply a question of operating on basic assumptions built into program and institutional design over the years. ...the notion that aging may involve the specific disability of substance abuse to an extent warranting prevention or treatment efforts outside those fields is still new and not widely accepted as a guide to drug abuse or alcoholism control planning. It is, as your inquiry plainly illustrates, beginning to gain currency in substance abuse policy-thinking; and with any kind of organized support from "geriatric organizations" it is quite conceivable that publicly funded prevention and treatment programs may result from its fuller acceptance as a desirable social principle.

The majority of the respondents mentioned several items repeatedly. Below these items are listed in the frequency in which they were given.

<u>Items</u>	<u>Number of Times Mentioned</u>
Low priority	17
Need for additional funds	14
Not enough staff	10
Not enough indication of need	8
Time constraint/Scope of work broad enough	7

<u>Items</u>	<u>Number of Times Mentioned</u>
No needs assessment had been done in this area	6
Lack of recognition or awareness of the problem	6
Lack of communication between agencies	3
Lack of interest	1
Aging agencies are providing their own outreach	1
State Commission on Aging frightened by the subject	1

Conclusions

The problem of substance abuse among the elderly is too often overlooked when service deliverers are being trained. The question that must be asked is should service deliverers in the substance abuse field have an awareness and recognition of the problem even though they may not be serving elderly clients at the present. If it is generally considered that service deliverers should at least be sensitized to the problem, then the National Training System might be the mechanism to ensure that training takes place. In order to train service deliverers in this area, a package needs to be developed on substance abuse and the elderly. It might be similiar to the training course "Women in Treatment" or "Making a Difference with Youth." At this time there is no such training tool. Even a module that could be "piggybacked" onto an existing course (or several) would be helpful. The point is there is no systematic training being done in this area and there appears a need to improve the visibility of the problem.

Although there is some integration of services taking place among state offices of aging and some ST&P's and SSA's, the majority of the states, based on their responses do not appear to be addressing the problem. For those states where there are large concentrations of the elderly population the problem may not be as hidden. Certainly a needs assessment is appropriate, and even then it might be said that if service deliverers are in need of learning about the problem perhaps the public even more so, which might be a reason that the problem isn't identified during a needs assessment.

As more state and local gerontological associations and substance abuse agencies integrate their resources and services to meet the problem, services will become less fragmented. Currently there appears to exist a gap in the delivery system since substance abuse service providers refer questions on the elderly to aging agencies and they in turn refer questions dealing on drugs and the elderly to drug agencies.

The problem of a lack of sufficient resources to address this issue is perhaps a valid one. The words "low priority" were most often mentioned. This phrase seems to effectively limit potential investigation and outreach on the part of STSP's. We need to get away from this kind of terminology which doesn't seem to take into account that older human beings are prone to use a vast amount of *drugs* and for a number of reasons are susceptible to misuse or abuse, and are in need of interventive services. Prevention can occur if substance abuse service agencies are willing to explore more intensively the use of prescription drugs, OTC, alcohol, and combinations thereof among the elderly. They should also be proactive in coordinating a program with another agency or agencies who work directly with the elderly but who may not have information on this problem.

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